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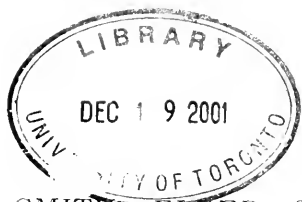
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ARTICLE 90.

FENGER ON THE THORACOPLASTIC OPERATION OF ESTLANDER.

DR. CHRISTIAN FENGER, of Chicago, discusses in a recent original article (*The Medical News*, Nov. 13, 1882) the treatment of those empyema-cavities where the rational operation has been performed in good time, where antiseptic dressings, accompanied by thorough drainage and washing out with the various disinfectant and alterative fluids, have been used; in short, where all other possible means have been exhausted, but the lung will not expand any more, the thorax cannot sink in any more, and there is no tendency in the cavity to become obliterated. The only way to close an empyema-cavity in this condition is to effect by an operation more or less complete contact of the walls of the cavity. As it is not in the surgeon's power to act upon the internal or pulmonary wall of the cavity, nothing is left but to obviate the rigidity of the wall of the thorax by taking away from the ribs covering the cavity, pieces as large and as many as may be necessary to effect a further sinking in of the thoracic wall, and sufficiently extensive to bring the latter into contact with the surface of the lung.

A case is reported of a girl aged sixteen, who, after an attack of empyema, which had been treated by repeated aspiration, suffered for a year and a half from a fistulous opening situated two inches and a half below and half an inch to the outside of the right nipple, between the sixth and seventh rib. Through this a probe could be passed upwards and backwards for about six inches, into the empyema-cavity. The amount of discharge was from one and one-half to two tablespoonfuls daily. As no improvement followed a prolonged trial of antiseptic injections, Dr. Fenger resolved to try the thoracoplastic operation as a last resort to effect the closure of the cavity and arrest the suppuration. He removed seven centimetres of the sixth, six centimetres of the fifth, and six centimetres of the fourth rib, in the right axillary region, over a transverse cavity two inches long, an inch and a half high, and about an inch in depth. The effect of this operation, namely, the closure of the cavity and fistula, was very prompt, taking place in fifty-four days after the operation. The immediate result of the operation was plainly to be seen in a remarkable sinking in of the thoracic wall in the region of the nipple, where the antero-posterior diameter of the chest was lessened by an inch and a half.

During the past twenty years, excision of a portion of rib has frequently been practised in order to afford access to an empyema-cavity, and to avoid trouble in keeping the fistula open. Simon, in 1869, was aware of the fact that, after resection of a rib for empyema, the cut ends of the bone soon approached each other; and in 1872, Heineke proposed to remove a portion of rib over a fistula as a means of diminishing the size of the empyema-cavity. To Estlander belongs the undisputed merit of having systematised the operation, and of having extended

it to the resection of as large a number of ribs as the size of the cavity might require.

This operation is indicated in cases of intractable empyema-cavities that have resisted all other treatment. Estlander, however, strongly advocates that it should not be made early, as he considers it a *conditio sine qua non* for a beneficial result of this plan of treatment, that both the pulmonary and costal layers of pleura have been transformed into a thick layer of firm connective tissue. The most suitable time for the operation in proper cases, according to this view, would be from six to eight months after the beginning of the disease. Dr. Fenger seems to hold that it might be appropriate to operate somewhat earlier, as it has been stated that, the earlier the empyema operation is performed, the more quickly will the fistula close in favourable cases; and it is evident that the thoracoplastic operation is liable to be more effectual when the layer of connective tissue covering the lung and the wall of the thorax is of moderate thickness, instead of being firm, hard, thick, and unyielding in any direction. As contra-indications, advanced pulmonary tuberculosis, albuminuria, and extreme debility of the patient naturally have to be considered. Of the first two named, albuminuria from amyloid affection of the kidney is probably the most important, as such patients are liable to succumb to the shock of even a not very serious or prolonged operation. As to the third contra-indication, a debilitated condition of the patient, Estlander has shown that, in patients emaciated almost to a skeleton, and so weak as to be capable of taking only a few steps, the operation causes very slight transitory derangements in the general condition, and that the slight fever and pain caused by it cease in a few days, and are followed by a remarkable and almost continuous improvement.

In some remarks on the operation itself, Dr. Fenger points out that in deciding upon the plan in each special case the first consideration is naturally the shape and size of the cavity; and the plan will be essentially different when the cavity has its greatest length from above downwards in a perpendicular direction, and when its direction is transverse from before backwards. A longitudinal cavity covered by five, six, or seven ribs, and not extending from the sternum to the vertebral column, but occupying only part of the thoracic cavity, will usually have the greatest depth in the axillary and infra-axillary regions, and will require the resection of small pieces—that is, each from two to six centimetres—of a large number of ribs. The first and second ribs are, as a matter of course, so inaccessible and also so near the large vessels that they are out of the question with regard to resection. A transverse cavity, it is stated, requires the resection of a large piece of one rib or of each of a few ribs. As to the length of these pieces, Homán, from a rather theoretical point of view, by mathematical deductions, gives the rule that there should be resected of each rib a piece, the length of which is equivalent to the greatest distance between the inner surface of this rib and the pulmonary surface of the cavity. Consequently, of several ribs covering the cavity, the largest piece will have to be resected from the rib extending over the middle of the cavity. According to Dr. Fenger these theoretical deductions will, in the main, be found practically applicable. For the excision of long pieces of two or three ribs, one single incision parallel to and either between the two or along the middle rib of three, will give

sufficient space for the removal of the pieces, especially in cases where the ribs are closely approximated. For the excision of small pieces of a large number of ribs, it is best to make several incisions parallel to and above each other in the intercostal spaces, each incision permitting the excision of two ribs. Through each incision in the skin, the periosteum is divided along the external surface of the rib and stripped from the bone by a common gouge. As a matter of course, the rib should not be denuded of periosteum beyond the limits of the part that is to be excised. The hæmorrhage, it is stated, is always insignificant. If the cavity be small and the walls sufficiently firm, it may be well to remove the soft suppurative layer of granulations with the sharp spoon, provided the cavity is so situated that no important organs are thereby endangered. If the thoracoplastic operation be sufficient to produce perfect approximation of the walls of the cavity, this proceeding might result in closure by first intention. A counter-opening into the cavity through the posterior wall of the thorax is desirable, if not necessary, if the cavity be of considerable size. The external wound should be united, cleansed, and dressed antiseptically. W. JOHNSON SMITH.

ARTICLE 91.

KOLOMNIN ON IGNIPUNCTURE IN GRANULAR AND SUPPURATIVE ARTICULAR AFFECTIONS.

PROFESSOR S. P. KOLOMNIN, of St. Petersburg, gives (*Medic. Obozr.*, February 1882) an important and elaborated paper on the ignipuncture of inflamed joints, based on the careful study of seventeen cases of his own, in fourteen of which there existed non-suppurative granular inflammation with granular infiltration of the soft structures around the joints, and more or less considerable enlargement and chronic periostitis of the epiphyses. Of three other cases, two were those of granular inflammation of the knee and ankle joints, with supuration and caries of the articular ends of the bones; and one of caries in an ankylosed knee. All these cases were treated by ignipuncture, which the author (who has practised this method since 1880) at first performed by means of a galvanocautery, afterwards mostly by means of Paquelin's thermo-cautery; but always under chloroform, and with the strictest possible Listerian precautions. The latter he puts forward as a condition *sine qua non* not only for the successful results of the whole treatment, but also for the safety itself of ignipunctured patients.

He describes the following four varieties of the operation. 1. In superficial ignipuncture, the thermo-cautery more or less deeply burns only granular-infiltrated soft tissues around the joint. 2. The thermo-cautery penetrates through the entire thickness of the infiltrated soft tissues to the bone, and cauterises only its inflamed cortical layer. 3. The thermo-cautery burns through integuments, granular-infiltrated soft parts, and osteoporously cortical substance, and enters more or less deeply into the spongy bone-tissue. 4. After preliminary trephining of the compact tissue of an epiphysis, the thermo-cautery, being introduced through the opening thus made, cauterises the marrow and the epiphyseal spongy substance.

As to the number of punctures, the author made

in the first two varieties as many as five to twenty, and in the third from one to two, three, or, in case of the knee-joint, to eight and ten. The joint operated on (and the whole extremity) was covered with a thin layer of carbolised or salicylic wadding, and fixed by means of a plaster of Paris bandage. In the majority of the cases the dressings were changed three times, at intervals of ten or twelve days; and by the end of a month or so all the punctures were usually found healed.

The results of this method of treatment are enumerated as follows. 1. Granular infiltration considerably diminishes, and that in far greater degree than under the influence of energetic painting with tincture of iodine within an equal period. 2. The size of the articular extremities affected by osteitis diminishes (though not always very considerably). 3. Pressure on the periosteum ceases to produce pain: this depends on the diminution or complete cessation of the periostitis constantly accompanying osteitis of the spongy tissue of the epiphysis. 4. All active and passive movements become painless. Generally the final (conservative) results of ignipuncture are so satisfactory, that the author does not hesitate to claim for this method a most conspicuous place in the treatment of granular articular inflammations: in regard to many cases he places this operation higher than the actual cautery, extension, immobilising bandage, and tincture of iodine.

The beneficial influence of ignipuncture is explained thus. 1. Ignipuncture gives rise to an acute traumatic vasculo-granular inflammation, with a great tendency of the granulation-tissue to cicatrization, that is, to transformation into durable connective tissue, and to osteosclerosis; and in this way entirely changes the nature of chronic granular inflammation of a joint. 2. Ignipuncture acts as a derivative. 3. The operation establishes channels in the compact layer of an epiphysis, and so diminishes the intra-osseous pressure, augmented in every case of epiphyseal granular inflammation. 4. It involves absolute rest of the limb operated on, which is required for the healing of punctures.

In conclusion, Professor Kolomnin lays down the following indications for the operation. 1. During the period of growth of the skeleton, ignipuncture is indicated in all cases of granular inflammation of the knee, ankle, elbow-, shoulder-, and wrist-joints in which enlargement and tenderness of the epiphyses are present. The longer the disease has existed, the more strongly immediate ignipuncture is indicated. The operation is indicated, also, in many cases of granular inflammation of the hip-joint—viz., in those in which the disease originates at the femoral epiphysis (*coxitis femoralis*). 2. In the subsequent periods—that is, after the growth of bones has been completed—the treatment by iodine and immobilising bandage at first may be tried, and then ignipuncture performed. In older cases, however, and especially in the subacute stage of articular inflammation, any considerable loss of time will be injurious. 3. Ignipuncture is the best means available in cases of osteitis of the foot and wrist, often observed in children. 4. Tuberculous osteitis and tuberculosis within the medullary canal of the diaphysis indicates ignipuncture, an opening having been just made in the compact bone-substance. 5. Ignipuncture is indicated, also, in cases of slight caries cariosa (*seu fungosa*) of the epiphyses. As the author's experience proves, the best results may be expected in those more or less acute forms of

vasculo-granular inflammation of the joints which present, amongst other symptoms, pain in movement and tenderness of the articular ends of the bones. The results are rather less favourable in granular inflammations originating in the synovial membranes and presenting an extremely chronic course, with absence of pain and tenderness and all acute phenomena.

V. IDELSON, M.D.

ARTICLE 92.

SECOND ON MODIFICATIONS IN THE CALIBRE OF VESSELS IN THE STUMPS OF AMPUTATED LIMBS.

AN interesting study of the modifications of blood-vessels after amputations is the subject of a paper by M. Paul Segond in the August and September numbers of the *Revue de Chirurgie*. His studies were suggested by the work of Professor Verneuil on the same subject, and were carried on by comparisons of the vessels of the stump with the corresponding vessels of the opposite or unamputated limb. Injections were made, for the arms, from the arch of the aorta, for the lower limbs from the abdominal aorta. The observations were made upon the dead bodies of individuals who had been subjected to operations of very different extent, from partial amputation of the foot or hand to removal of the upper arm or of the thigh. In all cases a notable diminution in the calibre of both arteries and veins was found, even when the part removed represented but a small portion of the limb. The diminution was not confined to the immediate vicinity of the operation, but included the vessels of the whole limb, and extended, in an amputation of the fore-arm, to the subclavian, and in an amputation of the leg to the iliacs. This diminution was found in every case submitted to careful comparative examination. The small number of vessels to be tied in a reamputation of an old stump is adduced as a clinical fact which confirms the result of the dissections; and observations are quoted which show the temperature of the amputated limb to be markedly below that of the corresponding member.

The observations were made on limbs after the lapse of very varying periods of time after amputations; and the diminution is shown to be a very early phenomenon, too early to be considered an effect of the atrophy of the soft parts of the stump. In fact, the diminution in the size of the blood-vessels probably plays an important pathogenic part in the atrophy of the limb. Direct experiment upon a dog showed that two months after the amputation of the thigh the gluteal muscles of the two thighs were of equal weight, while the iliac and femoral arteries of the amputated limb were markedly smaller than those of the other.

One of the most interesting of the dissections was made in a case of amputation of the left fore-arm. The muscles of the shoulder of the amputated arm weighed 316 grammes less than the corresponding muscles of the other side. The skeleton also presented well-marked modifications. The two clavicles were alike in dimensions, but the right weighed 4 grammes more than the left. These figures have only a relative significance, however, as the bones of the right arm weigh normally, in right-handed persons, more than the left. The proportion of compact and spongy tissue was not the same in the two sides; there was in the left clavicle a marked diminution

in the compact tissue. In the same patient, the scapula of the left side was 12 grammes lighter than that of the right. The axillary artery was diminished by one-fifth: the radial at its origin had lost nearly one-half of its diameter. The difference is always spoken of as a loss on the part of the amputated limb: the question very naturally arises, how large a proportion of the difference is due to increase on the part of the limb which is obliged to do an increase of work because of the mutilation of its fellow.

ARTICLE 93.

CROMBIE ON THE FUNCTION OF THE MEMBRANA FLACCIDA OF THE TYMPANIC MEMBRANE.

MR. JOHN M. CROMBIE, in an interesting paper on this subject (*Nature*, Dec. 7, 1882), first points out that the membrana flaccida (Shrapnell's membrane) is loose, and only very slightly attached to the bone, which at this part is smooth (on the tympanicus), but is mainly fastened to the skin of the canal; whilst, on the other hand, the lower portion of the tympanic membrane is firm and transparent, and fixed round its whole circumference to the sulcus tympanicus. After considering the characters of the skin lining the meatus, the author concludes that 'from the membrana flaccida of the membrane, which is easily movable at its margin, there is a piece of movable skin running over a smooth polished surface along the whole upper meatus of the bone, which is here bevelled off, and is immediately continuous with the movable membranous roof of the cartilaginous portion of the external passage. The movable piece of skin serves after its manner the purpose of a tendon, and the muscle which mainly plays upon it is attached to this upper membranous wall, at its point of junction with the osseous meatus.' The muscle in question is the lateral portion of the occipito-frontalis—*musculus epicranii temporalis*—which is anterior to and smaller than the *attollens aurem*, which forms the remainder of the lateral portion. On contraction, it raises the membranous roof of the canal upwards and slightly forwards, making the movable patch of skin glide outwards, and so telling upon the membrana flaccida, which even in the adult is almost in a line with the upper wall. The muscle has no isolated voluntary action, but is brought into play when the eyebrows are forcibly raised by the action of the occipito-frontalis. The author states that its effect on the membrana flaccida is distinctly visible through the speculum when the occipito-frontalis is made to contract.

By bringing the membrana tympani into a more vertical position, the author considers that it causes it to assume a position more favourable for hearing. Mr. Crombie was led to make these observations in endeavouring to trace the connection between a box on the ear and rupture of the membrana tympani, and concludes that a smart blow on the side of the head, too often thoughtlessly administered by schoolmasters and parents in correcting children, may cause sudden spasmodic action of this muscle, and thus, through the mechanism described, rupture of the membrana tympani.—[The author appears to ignore the usual explanation of this accident by the sudden compression of air in the meatus, which must surely be an important factor.—*Rep.*]

E. CRESSWELL BABER, M.B.

ARTICLE 94.

ESKRIDGE ON INTRAVENOUS INJECTIONS OF AQUA AMMONIÆ FORTIOR IN A CASE OF SEWAGE-POISONING.

Dr. J. T. ESKRIDGE publishes in the *Phil. Med. Times* the report of an interesting case. The patient, who had worked for five years as a sewer-cleaner without ever having experienced any unpleasant effects, and who was a muscular man thirty-six years old, went into a deep privy after having made the customary test of lowering a candle, which continued to burn brightly. Instantly on reaching the bottom he fell, overcome by the gas, which was believed to be either sulphide of ammonium or of hydrogen. At all events it was not carbonic acid gas, and the instance seems to show the danger of trusting to the light test in determining on the safety of entering such vaults.

As he fell, his body became almost entirely covered by fecal matter, his mouth pointing upwards, but still so close to the foul matter by which he was surrounded that some of the more liquid contents of the well could easily gain access to his air-passages during laboured efforts at inspiration. He remained in this situation half an hour, when a rope was passed around his body, and he was hoisted from the well in an apparently lifeless condition. His rescuer was also very near losing his life, having just time to throw the rope round his companion, when he himself became insensible.

The patient was taken to the hospital, where he was found to have a high feeble pulse, great cyanosis, and frequent convulsions. Digitalis, brandy, atropia, and morphia were all injected hypodermically without effect, except that after the last two had been injected in the left arm the convulsions became nearly limited to that side, but were still very violent. At the end of one and a half hours he was apparently moribund, the respirations being sixty to the minute, of a puffing and jerking character, with tracheal rales, the pulse 200 and very irregular in volume, the convulsions and cyanosis intense and increasing. It occurred to the attendant that, in view of the state of the capillary circulation, the cardiac frequency might be due to clotting of blood in the heart, and that, if anything could be introduced into the circulation to change the condition of the blood and rouse the man's vital powers for a short time, he, being naturally strong, might be able to throw off the noxious influences of the poison. For this purpose, intravenous injection of ammonia seemed to be indicated. One of the superficial veins at the bend of the arm was exposed, and raised with the forceps, and there was gradually injected into it thirty-five minims of the undiluted stronger water of ammonia. (It was supposed at the time to be the diluted aqua ammoniac.) The pulse was almost immediately lessened in frequency and increased in volume, but the stimulating effects soon began rapidly to pass away. Ten minutes after the first injection, thirty-five minims more were injected into the vein, and this was repeated every ten minutes, until one hundred and forty minims of the ammonia solution had been introduced into the blood. The character of the pulse was improved by each injection, the respiratory efforts becoming deeper and less frequent. The convulsive movements had by that time nearly ceased. Following the same indication, the injections were then continued every fifteen minutes, with careful watching

of the effect. After the tenth injection the pulse was 128 per minute, and did not again rise. After the twelfth and last he was able to swallow stimulants and food, and in ten hours after his attack was apparently conscious, though he had no subsequent recollection of anything that happened that day. The next day he was walking about, feeling quite well, and had no further symptoms except slight nausea and occasional diarrhœa for a few weeks. There was a small abscess at the seat of the injection.

The author concludes that the action of the ammonia was twofold, preventing the tendency to heart-clot, and stimulating the respiratory centres in the medulla. In a similar case, he would dilute the stronger water with two parts of distilled water at a temperature of 110° F.

ARTICLE 95.

SANDERSON ON THE COMMUNICATION OF TUBERCLE BY INOCULATION.

Dr. J. BURDON SANDERSON, in a series of elaborate papers published in the *Practitioner* during 1882, sums up at p. 423 of the second volume with the following conclusions.

1. The characteristic product of tuberculosis is not an aggregate of shrivelled particles of irregular form, but a tissue composed of lymph-corpuscles held together by a network of hyaline connective substance.
2. There is a close structural analogy between this tissue and that of certain follicular organs belonging to the lymphatic system, e.g. the follicles of Peyer, the ampullæ of the lymphatic glands, &c.
3. All the favourite seats of tubercle are naturally characterised by the presence of this tissue, which, from the analogy stated above, may properly be called adenoid.
4. The natural distribution of adenoid tissue in the body is in intimate relation with the lymphatic system. In the great serous membranes (which Von Recklinghausen's discoveries have taught us to regard as walls of lymphatic reservoirs) it forms sheaths round the blood-vessels, or masses of microscopical dimensions and irregular contour underneath the epithelium. In the solid viscera, it is distributed here and there in the course of the lymphatic channels.
5. In the peritoneum, tuberculosis primarily consists in the enlargement or overgrowth of these sheaths or microscopical masses of adenoid tissue; and consequently the tuberculous nodules which are formed have the same intimate structure and stand in the same anatomical relation to the vessels and epithelium. In the viscera, the essential lesions also consist not in new growth, but in overgrowth of pre-existing masses of adenoid tissue.
6. The primary local lesion in artificial tuberculosis, whether the cause be simple wound or specific inoculation, consists in the development at the seat of injury of granulations or nodules which have similar structural characters with those of adenoid tissue elsewhere, but cannot as yet be shown to be in relation with the absorbent vessels.
7. The first step in the dissemination of tubercle consists in its being absorbed primarily by the lymphatics (which convey it to the lymphatic glands of which they are tributaries), and secondarily by the veins. Having thus entered the systemic circu-

lation, it is distributed universally by the arteries. The serous membranes seem, however, by preference to appropriate it, and from them it extends by contiguity to the superficial parts of the organs which they cover.

8. The final stage of the process consists in the tertiary infection of the glands of each diseased organ, which glands consequently undergo enlargement and induration, and eventually become partially caseous. The enlargement is due to the multiplication of cells in all the tissues of the organ, but more particularly in the alveoli; the hardening to a process of fibrous degeneration; while the caseation consists in slow necrosis of the previously hardened and anemic parts. From the first the gland is incapable of performing its functions, but it is not until induration commences that the absorbents of the organ to which it belongs are completely obstructed.

9. In the liver of the guinea-pig, and in some other organs, tuberculous tissue undergoes a fibroid degeneration and caseation, the results of which cannot be distinguished from those observed in the normal adenoid tissue of the lymphatic glands and of the spleen.

10. As regards the question of a *specific contagium* of tubercle, we think it very important to note that this is not as yet disproved by the facts of traumatic tuberculosis. It still remains open to inquiry whether or not injuries which are of such a nature that air is completely excluded from contact with the injured part, are capable of originating a tuberculous process. The results of the following experiments, undertaken at the instance of Mr. Simon with special reference to this question, seem indeed to suggest that they may not be so. Setons steeped in carbolic acid were inserted in ten guinea-pigs on September 24, 1868, each animal receiving two. At the same time, extensive fractures of both scapulae were produced on five others, care being taken not to injure the integuments. No tuberculosis or other disease of internal organs resulted in either of the cases. The facts certainly point to the necessity of further investigation in this direction.

RICHARD NEALE, M.D.

ARTICLE 96.

PARTZEVSKY ON A CASE OF PARACENTESIS AND INCISION OF THE PERICARDIUM.

DR. A. PARTZEVSKY (*Mediz. Obozr.*, March 1882) brought before the Moscow Physico-Medical Society a very interesting case of pericarditic effusion, treated by repeatedly performed tapping, and, finally, by incision of the pericardial sac with subsequent drainage. The patient was a street-hawker, aged 23, who four years previously had suffered from an attack of exudative pleuritis, followed by obliteration of the right pleural cavity, partial atelectasis of the right lung, chronic inflammation of its apex, and falling in of the corresponding supra- and infra-clavicular regions. Four weeks before admission, there had appeared pain and tenderness in the scrobiculus cordis, dyspnoea, fever, and later progressive emaciation and general weakness. On admission his skin was pale, his lips livid, pulse small, weak, 120, respiration 36; evening temperature 101.5°, morning 96.6. On the left side of the chest percussion detected dullness, which posteriorly ex-

tended from the lower angle of the scapula downwards, and anteriorly on the parasternal line from the second intercostal space of the seventh rib, while transversely the area of dullness extended from the left axillary line to the right mammillary. The apex-beat could be neither seen nor felt; the heart-sounds were faint but clear. Over the area of dullness, posteriorly, the respiratory murmurs and pectoral fremitus were considerably weakened; along the left axillary line there were heard moist *râles* and faint bronchial respiration. The cough was troublesome; expectoration was scanty, frothy, muco-purulent. Such were the signs which led the author to the diagnosis of pericarditic and left pleuritic effusion. The further course of the case was very remarkable. Soon after admission, there commenced progressive absorption of both exudations, the pericardial disappearing rather more rapidly than the pleural. Within six weeks all traces of pericarditis disappeared, and the heart's activity became quite satisfactory; as did also the patient's general state. But in the seventh week, in spite of the uninterrupted and energetic absorption of the pleural effusion, there again appeared dyspnoea, palpitation, weak and irregular intermittent pulse, 120, increase of cardiac dullness; in short, all the symptoms of a pericarditic relapse. The intensity of all these signs daily grew *pari passu*, with decrease of pleuritic accumulation; and on the sixty-third day (since admission), by which time absorption of the latter had been completed, the patient's state was as follows. The area of cardiac dullness again reached from the right nipple to the left axillary line, and upwards as far as the second rib; the cardiac region was bulged outwards; the apex-beat had disappeared; the heart-sounds were almost inaudible; the pulse was scarcely perceptible; respiration 52; there were extreme cyanosis and general weakness; swallowing was almost impossible. It was evident that the pericardial sac was again distended to the highest degree, and that the patient's life was threatened. Under these urgent circumstances, the author decided to remove pressure on the heart by means of tapping. Accordingly, after an exploratory puncture with Pravaz's syringe, which was performed in the fourth interspace within two inches from the sternum, the needle of a Dieulafoy's aspirator was introduced at the same point, and about 2½ pounds of brownish turbid serous fluid drawn off. This was immediately followed by great relief (pulse full, regular, 96; respiration 36; decrease of cyanosis; swallowing easier, &c.), which, however, lasted only three days. On the fourth day there appeared a rigor and rise of morning temperature to 102.7°, and on the sixth there once more developed all the signs of an enormous pericarditic re-accumulation. The symptoms of incipient œdema of the lung (on the eleventh day) were taken as an indication for a second tapping, which was made between the fourth and fifth ribs about an inch from the sternum. Only three ounces of pus could be removed this time, though the area of cardiac dullness measured 14 centimètres vertically and 18 centimètres transversely. On the next day after the aspiration had failed to relieve the patient, who rapidly grew worse, an incision into the pericardium (in the fourth interspace) was performed and two drainage-tubes inserted, through which an enormous quantity of pus escaped. The pericardial cavity was washed out by a salicylic solution (1:300), and

Lister's dressing applied. During the next ten or fifteen hours he felt greatly better, but a sleepless night had utterly broken the remaining strength of the exhausted patient, and about thirty hours after the operation he died in a state of collapse.

The *post mortem* examination revealed that the pericardium, which contained three ounces of pus, was greatly thickened and covered with thick pseudomembranes, the right ventricle hypertrophied, and the cardiac muscle in a state of fatty degeneration. Both lungs were universally adherent to the pleuræ, being also atelectatic and œdematous. The liver was pushed up to the fourth rib, and fixed there by adhesions with the diaphragm.

The author at some length discusses the [subject of operative treatment of pericardial effusions, and sums up his own views thus. 1. In a vast majority of cases the operation (that is, puncture and aspiration, and, if they fail, subsequent incision with drainage) is not attended with any danger. 2. It brings rapid relief, and its palliative usefulness is not denied even by the opponents of operative interference in similar cases. 3. In the absence of such complications as tuberculosis, cancer, organic changes of the heart, &c., the operative treatment of non-purulent pericardial effusions may prove successful in the majority of cases. 4. In cases of purulent pericarditis, it is perfectly justifiable to try an early operation, in order to prevent dilatation and fatty degeneration of the heart, which generally supervene here very rapidly.

[In the LONDON MEDICAL RECORD, April, 1881, p. 138-9, is to be found Professor Rosenstein's case, which is like the case above more than in one detail. See, also, Dr. Kummell's paper on paracarcinoma of the pericardium, *ibid.*, July 1880, p. 279-80.—*Rep.*]

V. IDELSON, M.D.

ARTICLE 97.

GUROVITCH ON TUBERCULOSIS OF THE FAUCES AND PHARYNX.

THE author's inaugural thesis (*St. Petersburg Dissertation*, 1882) is an interesting contribution to the study of the subject, and is based on a careful examination of eleven cases of his own, and of those found in literature. In common with Isambert and Mackenzie, Dr. T. Gurovitch admits, as a fact well established both clinically and microscopically, that tuberculosis may occur in the fauces and pharynx primarily, though in a vast majority of cases it is developed here only as a complication of advanced pulmonary phthisis. Examination of a patient suffering from primary faucial tuberculosis (and generally showing all signs of pronounced phthisical habit and broken health) reveals an extreme paleness of the mucous membrane, with yellowish tint, and intumescence of the soft palate, lateral walls of the pharynx, and glosso- and aryteno-epiglottidean folds, which present a grey tallow-like infiltration, and are as if strewn with sand. Over the whole faucial and pharyngeal mucous membrane there are scattered minute grey and yellow nodules, which at some spots form small heaps and patches, showing a tendency to ulceration. On the tonsils and pillars there are visible small shallow elongated ulcers, with greyish surface, surrounded by a reddish areola. The isolated erosions are almost invariably of equal size, but they tend to coalesce and to form extensive irregularly defined ulcerated areas. In some cases the whole pos-

terior wall of the pharynx is occupied by a superficial ulcer of this kind. When the process deepens, these erosions are transformed into typical tuberculous ulcers with uneven bases, covered by atonic granulations and grey or yellow deposit, and with irregular ragged edges. In some rare cases the affection begins like common sore-throat, with considerable tumefaction and hyperæmia of the velum and pharynx, tubercles appearing only later. When faucial tuberculosis occurs in the course of pulmonary phthisis, there usually appear only very few typical ulcers (sometimes only one); but if the fatal issue approach slowly, they may lead to an extensive and deep destruction of tissue. Thus, in one of the author's cases, an ulcer spread on and perforated the hard palate. Not very seldom (in three of eleven cases) tubercles are developed in the fauces and pharynx very late (during the last days of a phthisical patient's life) and then are detected only *post mortem*. The author gives a detailed account of his histological investigation of numerous specimens taken from ten cases, and comes to the following conclusions. 1. In faucial and pharyngeal tuberculosis there occur tubercles of three varieties: the round-celled, epithelioid, and giant-celled. 2. The epithelial covering of mucous glands undergoes fatty and colloid degeneration, but takes no part whatever in the development of giant-cells and tubercles. 3. The subjacent muscles undergo interstitial inflammatory changes with fatty degeneration of muscle-substance. 4. Both glandular and muscular changes, as well as those in connective tissue, are of a diffuse character. 5. Beside Koch's bacilli, the presence of which in tuberculosis does not admit any doubt, there are found, amidst elements of tubercle and especially within giant-cells, some round micro-organisms, which also may play a rôle in the development of tuberculous process. [A case of milary tubercle of the pharynx is reported in the LONDON MEDICAL RECORD, 1880, February, p. 65.—*Rep.*]

V. IDELSON, M.D.

ARTICLE 98.

DONALDSON AND STEVENS ON THE INFLUENCE OF DIGITALIN UPON THE HEART.

MESSRS. H. H. DONALDSON, Fellow in Johns Hopkins University, and L. T. STEVENS, have been (*Philadelphia Med. News*) conducting a series of observations upon the influence of digitalin upon the heart of the slider terrapin and the frog.

The results are derived from two groups of experiments. The first was carried on by Messrs. Warfield and Donaldson during the first five months of 1882; the second, which is simply a continuation of the first, has been carried on by Messrs. Donaldson and Stevens since October. Though they are not yet complete, we are able to give some of the results which have been obtained.

The first investigation was on the work of the heart, and the object was to determine whether the work done by the isolated heart was increased or decreased by moderate doses of digitalin. The heart of the slider terrapin (*Pseudemys rugosa*, Shaw) was used. Carefully isolating the heart from its connection with extrinsic nerves and the rest of the circulatory system, it was supplied with a continuous stream of blood under conditions of pressure and temperature as near the normal as possible. It

was then found that when the heart, beating normally, was treated with a small dose of digitalin, the work invariably decreased. The full account of these experiments was published in the *Studies from the Biological Laboratory of Johns Hopkins University*, Vol. ii., No. 3. The frog (*Rana nigricans*) was used instead of the terrapin; the same result, however, followed—i.e. the work done by the heart decreased under moderate doses of digitalin.

With a view to testing the influence of abnormal blood-pressures on these results, some experiments were made in which both venous and arterial pressures were varied within wide limits, but the work always decreased. To test the effect of aortic insufficiency, the cannula was pushed in the aorta down past the semilunar valves into the ventricle itself. Under these conditions the heart weakened very fast, but the only effect of digitalin was to decrease the work. A study of the separate beats of the frog's heart shows that the work at first decreases, because the excursion of the ventricle—the variation of capacity between diastole and systole—is somewhat decreased, the rate of the pulse being only slightly diminished. Later, the pulse is often retarded to half the normal rate, while the work has by no means decreased proportionally. This arises from the fact that the excursion of the ventricle is now much greater than is normal, and thus somewhat compensates for the diminished pulse-rate. In this latter case, the individual beats of the heart are very much strengthened.

To test the variation in form which takes place in the heart under digitalin, use was made of Roy's tonometer (*Journal of Physiology*, Vol. i., No. 6). By this means, one can determine whether the primary diminution in the excursion of the ventricle is due to a gradual shrinkage or to distension of the ventricular muscle. Experimenting with the isolated ventricle, the authors have always obtained evidence of a shrinkage—that is, the ventricle tends more and more to remain in the systolic condition. They have not yet been able to observe in these experiments the condition of the ventricle described above, where it beats slowly, but at the same time with an excursion much greater than normal.

The isolated auricles also shrink under the action of digitalin. This shrinking of the auricles can be directly observed in the heart of the terrapin without the aid of any apparatus, but in the case of the frog it requires the tonometer to make it plain. The variations in the volume of the whole heart have not yet been tried.

By moderate doses are meant, from .0005 to .002 gramme of the soluble German digitalin, mixed with 100 cc. of nutrient fluid. The drug used was prepared by Merck.

The bearing of these results can be briefly noted. Starting from the fact that there is a rise of blood-pressure under digitalin, it is evident that this rise is not due to the heart, because, under all varieties of conditions, the heart does less work. The rise must then be due to a narrowing of the arterioles, a view maintained by many, but on which as yet, no direct evidence can be offered. It appears, then, that digitalin is a drug by means of which we can maintain a high arterial pressure and at the same time reduce the amount of work done by the heart itself.

It is hoped in the course of the year to extend these observations to the isolated mammalian heart, and thus render the series of experiments complete.

ARTICLE 99.

BANTI ON SPLENIC ANÆMIA.*

DR. BANTI'S work is a carefully written, though by no means exhaustive, monograph. The author deals only with that form of pseudoleukæmia in which the spleen alone is affected, the lymphatic glands being very little if at all altered. The work opens with a short historical account of this and the allied affections. Leucocythæmia, or, as the author (following Virchow) calls it, leukæmia, is divided into splenic, lymphatic, and the recently added myelogenous form. Pseudoleukæmia, or Hodgkin's disease, is divided into splenic and lymphatic. The opinion of some observers that progressive pernicious anæmia was a myelogenous form of pseudoleukæmia was found to be erroneous, by researches which showed that the changes in the medulla of the bones were secondary to the anæmia.

The materials the author has before him are not over-abundant. They are three cases observed by himself, in only two of which was a *post mortem* examination obtained, and a few cases related by other observers. The scarcity of material, however, is to a great extent atoned for by the care with which it is worked up.

The chapter on the pathological anatomy of splenic anæmia (as the author calls the splenic form of pseudoleukæmia) and the chapter on the nature and theory of the disease, are both full of interest. Though the histological changes in the spleen are not in any sense specific, they are, nevertheless, sufficient to distinguish the spleen of pseudoleukæmia from the spleen of leukæmia. In pseudoleukæmia (lymphadenoma, Hodgkin's disease) the changes in the spleen are: (1) atrophy and sclerosis of the Malpighian corpuscles; (2) instead of the fine and regular reticular gland-tissue of the healthy pulp, a network with small and irregular meshes, and large coarse filaments, fibrillated and ribbon-like. In leukæmia (leucocythæmia), on the other hand: (1) the Malpighian corpuscles are sometimes atrophied and sometimes hypertrophied, but in all cases the reticulum preserves its delicate and regular structure; (2) the network of the pulp is formed of very fine fibrils, with rather small and regular meshes.

For brevity, as well as to avoid confusion, the author proposes the term *hyperadenia* to denote the histological changes in the spleen in leukæmia, the adenoid tissue being increased without substantial alteration of structure. To the splenic changes in pseudoleukæmia, on the other hand, he gives the name of *fibro-adenia*, there being here not merely an enlargement of the filaments of the network, but a fibrous transformation of them.

The author has little to say about the etiology of the disorder. His account of the symptomatology does not call for any special remark. In fact, his definition of the disease sums up concisely the two chapters dealing with these subjects. 'Splenic anæmia is a malady characterised by a progressive oligæmia occurring without appreciable cause, which gives rise to grave disturbances of all the organic functions, to oedematous effusions, hæmorrhages, and irregular fever, followed almost uniformly by death, accompanied by well-marked swelling of the spleen, and frequently also of the liver; a swelling

* G. BANTI.—*Del' Anemia Splenica*. Royal Soc. Pp. 70. Pubblicazioni del Reale Istituto di Studi superiori pratici e di Perfezionamento in Firenze, 1882.

independent of any previous morbid process, and unconnected with a leukæmic alteration of the blood.'

In a diagnostic point of view, splenic anæmia must be distinguished from carcinoma and hydatids, from amyloid degeneration, leukæmia, palustral cachexia, grave anæmia with enlargement of the spleen, enlarged syphilitic spleen, and enlarged spleen from cirrhotic liver. Only two of these have we space to glance at—palustral cachexia and anæmia accompanied with swollen spleen. Palustral cachexia is distinguished by its malarial origin and by the presence in the blood of pigment-granules, black, brown, or yellow brown, either free or contained in the protoplasm of the leucocytes. Anæmia with swollen spleen are of various classes. A severe, progressive, and fatal anæmia may occur in a person suffering from an enlarged spleen, due to malaria or other cause. In this case the diagnosis is impossible during life, and the nature of the disease can only be established by the histological characteristics of the affection. Again, the enlargement of the spleen may follow the anæmia instead of preceding it. In this case, the judgment must be suspended for a while. And then, if the spleen do not increase with the progress of the case, splenic anæmia may be excluded.

In regard to therapeutics, Dr. Banti has not much that is new. For mild measures he gives the weight of his opinion to arsenic, mercurials, and parenchymatous injections. He believes, however, that there is a great future for splenectomy in this disease. After analysing the recorded cases of the operation, he finds that in only four was the disease undoubtedly splenic anæmia. The four cases are those of Spencer Wells (1865), Péan (1876), Czerny (1878), and Franzolini (1881). And of these four only one case (S. Wells's) died. On the other hand, in cases of leukæmia, the operation was invariably fatal. He notes also that, whilst in lymphatic pseudoleukæmia the removal of the glands first observed to be affected does not stop the course of the disease, in splenic anæmia, which is of the same nature, the removal of the organ at fault absolutely cuts short its progress: the difference in result being probably due to the more general diffusion of the disease in the lymphatic variety of the affection.

WILLIAM R. HUGGARD, M.D.

ARTICLE 100.

DE WECKER AND GALEZOWSKI ON THE EXTRACTION OF CATARACT.

DE WECKER, in the *Annales d'Oculistique* for November-December 1882, describes some recent improvements in his mode of cataract extraction. He thinks that the mechanical details of the well-known operation which he practises cannot be improved upon, but that by paying special attention to the occlusion of the wound, the removal from it of every particle of *détritus*, and its direct disinfection, he can ensure an almost total absence of suppurative panophthalmitis. For the perfect occlusion of the wound he makes a short conjunctival flap, the careful arrangement of which at the end of the operation ensures rapid union, and perhaps also is the means of excluding germs.

For the disinfection of the wound he employs, previously to the commencement of the operation, a

solution of boracic (4 per cent.) and salicylic (1 per cent.) acids, with which to carefully wash both the conjunctiva and the edges of the lids. He takes all instruments from the carbolic acid bath (2½ per cent.) as they are used, and finally he moistens the lips of the wound with a few drops of the same solution on his spatula. He finds that the carbolic acid acts with sufficient power to coagulate and decolorise the clots, but not to interfere with primary union.

For preventing entanglements of capsule and of iris, he recommends the reduction of the latter by means of his caoutchouc spatula. To ensure certainty that no fragments of capsule are left between the lips of the wound, he advises that every operation should be terminated under oblique illumination with artificial light. In this way he can readily distinguish the anterior capsule, which rapidly acquires a greyish tinge through access of aqueous humour to its internal surface from the unaltered posterior layer.

Galezowski, in the *Lancet* of January 20, 1883, also describes a new method of cataract extraction. He was moved to make some modification in the operation which he had previously practised—the modified linear extraction of Von Graefe—by the suppurations which occurred in about 5 per cent. of his cases, misfortunes against which ordinary antiseptic precautions seemed to be powerless.

From a statistical examination of nearly 1,000 of his cases of cataract extraction he has come to the conclusion that the best flap is one with puncture and counter-puncture, just within the transparent cornea, and with apex 2 mm. below the upper sclero-corneal junction. He opens the capsule with the point of the Graefe knife during his first incision, and finally, taking out the speculum, evacuates the lens through the pupil by gentle manipulation of the lids with the fingers. He never uses iridectomy, except where some special condition exists: as, for example, when the iris is torn during passage of the lens; where the latter does not present in the wound; where the cataract is traumatic, and complicated with posterior synechiæ; or where the bulging iris is cut during the first incision, &c.

It appears somewhat remarkable that the above-named two eminent authorities should have, as far as their statistics go, arrived at the same results by such different procedures. De Wecker's 366 extractions without suppuration have certainly the advantage in point of numbers over the parallel series of fifty-six operations that Galezowski has done by his new process. It appears more than probable that further statistics will modify the figures in both cases. Certainly, the cause of the absence of suppuration does not reside in the section, as this is so different in the two cases, and, on the other hand, so similar to those practised by some surgeons for many years in England, where it has been even coupled in many cases with the absence of iridectomy, with but the average success.

Nor can we with more certainty, in the case of De Wecker's operations, attribute it to the antiseptic precautions taken; since we know that the use of the carbolic spray and, indeed, of antiseptic lotions generally, has been discontinued after full trial by the majority of ophthalmic surgeons.

Before we can become fully acquainted with all the causes of suppurative panophthalmitis, it will be necessary to collect from all sides statistics of all

cataract operations which have been followed by this dire result. Special attention must be given to cases where both eyes have been operated on at one or at different sittings. If, in the former case, we have to record one-sided suppuration, we shall be more readily convinced that such is due to some detail in the operation, whether in the position of the incision or in relation to the introduction of deleterious matter. Till then we must, while paying special attention to the teachings of our distinguished colleagues, each of us anxiously watch our own procedures and results. W. A. BRAILEY, M.D.

SURGERY.

RECENT PAPERS.

101. GARSTANG.—Urethral Caruncle. (*Brit. Med. Jour.*, Nov. 1882, p. 932.)
102. DEARDEN.—Cases of the Atlas and Axis. (*Lancet*, Oct. 1882, p. 568.)
103. MORRIS.—Rider's Sprain. (*Lancet*, July 1882, p. 133.)
104. BARWELL.—Boro-Glyceride in Surgery. (*Brit. Med. Jour.*, Aug. 1882, p. 351.)
105. THOMSON.—Refracture of the Patella. (*Brit. Med. Jour.*, Aug. 1882, p. 358.)
106. SKIRVING.—Fatty Emboli after Fracture. (*Lancet*, Oct. 1882, p. 567.)
107. BARKER.—On Varicocele. (*Lancet*, Sept. 1882, p. 521.)
108. SOUTHAM.—Excision of the Pylorus. (*Brit. Med. Jour.*, July 1882, p. 163.)
109. DOBSON.—Amputation in Senile Gangrene. (*Brit. Med. Jour.*, July 1882, p. 129.)
110. SPANFON.—The Immediate Cure of Inguinal Hernia. (*Brit. Med. Jour.*, July 1882.)
111. CHEYNE.—Abortive Treatment of Gonorrhoea by Iodoform. (*Lancet*, Aug. 1882, pp. 175, 213.)
112. CEELY.—Dislocation of the Fifth Cervical Vertebra; Recovery. (*Lancet*, Oct. 1882, p. 619.)
113. TAIT.—On Cholecystotomy. (*Brit. Med. Jour.*, Nov. 1882, p. 990.)
114. BELLAMY.—Contracted Fingers. (*Lancet*, Sept. 1882, p. 439.)
115. BERRIDGE.—Anæsthesia by Rapid Breathing. (*Brit. Med. Jour.*, Nov. 1882, p. 1038.)
116. BAUDRY.—Tennis in Perna. (*Lancet*, Sept. 1882.)
117. THELEN.—Nephro-lithotomy in a Case of Ischuria. (*Centralbl. für Chir.*, No. 12, 1882.)
118. BRADFORD.—A Painful Affection of the Wrist. (*New York Med. Jour. and Obstet. Rev.*, July 1882.)
119. HEUSNER.—A Case of Wound of the Heart. (*Deutsche Med. Wochenschr.*)
120. WOLFFLER.—Antiseptic Treatment of Cancer of the Tongue. (*Ibid.*, Band xxvi., Heft 2.)
121. PFELLSCHNEIDER.—The Antiseptic Treatment of Transverse Fracture of the Patella. (*Archiv für Klin. Chir.*, Band xxvi., Heft 2.)
122. ANGELINI.—Aneurism of the Brachio-cephalic Trunk Cured by Injections of Ergotin. (*Tenth Congress of the Ital. Med. Assoc.*)
123. BIGI, PROF. E.—The Second Pyloric Resection in Italy. (*Gazz. Med. Ital.*, Nov. 11, 1882.)
124. POGGI, ALFONSO.—Physical Dilatation of the Pylorus. (*Ibid.*)
125. HEUSTIS.—Injection of Carbonic Acid Gas in Intestinal Obstruction. (*Med. News*, June 3, 1882.)
126. WEIR.—Treatment of Gangrene of the Intestine. (*New York Med. Jour. and Obstet. Rev.*, Oct.)
127. ALLIS.—The Cure of Hip-joint Disease. (*American Practitioner*, May 1882.)
128. MARIANI.—Two Cases of Transfusion of Animal's Blood. (*El Siglo Medico*, Sept. 24.)

ART. 101. *Garstang on Urethral Caruncle.*—In the *Brit. Med. Jour.*, Nov., p. 932, is a paper on urethral caruncle, read by Mr. T. H. Garstang at the annual meeting of the British Medical Association at Worcester, in which, having called attention to the importance of this subject from the agony the patients are in who are afflicted with it, he stated that, besides the usual form, there also exists in some cases an allied disease, consisting of an extremely vascular and painful condition of the general lining membrane of the urethra, which may appear as a patch, or as a ring, or may involve the whole canal, without the existence of any visible tangible tumour or excrescence, yet exactly resembling ordinary caruncle in its symptoms, and in its entire resistance to all forms of treatment except the total destruction of the diseased part. A series of cases are described with their treatment, the latter consisting chiefly in the local application of nitrate of silver.

In the discussion that followed, Dr. Edis expressed the opinion that some of the cases described (those which Mr. Garstang took to be the unusual form of caruncle) were instances not of urethral caruncle, but of irritable or vascular conditions of the urethra, nitrate of silver being sufficiently powerful to allay this, but not being strong enough to destroy a true caruncle; and that a saturated solution of carbolic acid would have been found more serviceable, and its application less painful. Dr. Cullingworth also stated that Mr. Garstang's cases might possibly be irritated conditions of the urethra, the symptoms being aggravated by hysteria, and that in such cases he had found simple dilatation of the urethra to be most efficacious.

102. *Dearden on a Case of Caries of the Atlas and Axis.*—Dr. Dearden reports the following obscure case in the *Lancet*, Oct. 1882, p. 568. The patient, a man aged 42, with a history of having been accustomed to camp out frequently during eleven years' residence in Australia, and of having had a severe fall on the back, complained of acute darting pains up the left side of the neck, aggravated by movement and of a dull aching at the top of the head; two of the cervical glands were enlarged. Subsequently his voice became squeaky, bilious vomiting occasionally occurred, and saliva dribbled from the right angle of his mouth. About six months after first coming under observation, he raised himself suddenly to a sitting position and immediately expired. At the necropsy, the chief morbid changes found were caries of the odontoid process; necrosis of the left lateral half of the atlas, the right half being represented by only small pieces of necrosed bone; and the transverse ligament was absent. Death resulted from a sudden contraction of the sternomastoids. When the head was drawn forwards the absence of the transverse ligament allowed the odontoid process to slip backwards and crush the medulla against the posterior part of the foramen magnum. During life the diagnosis was thought to rest between aneurism of the basilar artery or abscess of the base of the brain; and he was treated at various times with counter-irritants, iodide of potassium, quinine, and sedatives. The patient expressed himself relieved most when taking a mixture containing gelsemium and quinine, and using a lotion composed of equal parts of chloroform, tincture of opium, belladonna, and aconite.

103. *Morris and others on Rider's Sprain.*—Mr. Henry Morris, in the *Lancet*, July 1882, p. 133, describes two conditions; one, which he terms the lawn

tennis arm, being a sprain of the pronator radii teres, a result of the back stroke frequently employed in that game; the second, the rider's sprain, which occurs much more frequently, resulting from the equestrian taking a sudden grip, because his horse makes some unexpected movement. It is essentially a sprain of the adductor longus, with sometimes rupture of a few of the fibres or effusion of blood into its substance. So frequent is this accident, that Mr. Hawksley, the instrument-maker, has seen ten such cases during the last winter. For it he makes a long web or leather strap, two or three inches broad, to pass round the thigh and pelvis like a spica bandage, the action of which is to restore power and comfort to the limb, which was previously nearly useless. Two cases are cited; in the first, there was effused blood which did not become absorbed, but formed a hard mass at the inner side and top of the thigh, looking like an exostosis or piece of the os pubis broken off.

On p. 134 Dr. Henderson relates a similar accident which occurred to himself in China, where it appears it is well known and treated in the same manner. In the number for August, p. 201, Mr. Jordan Lloyd describes a case in which the tendon of the adductor longus was completely ruptured from suddenly gripping the saddle while riding a restive horse. It was treated by firmly bandaging the limb from below upwards, the patient making a perfect recovery after a few weeks.

Dr. Innes states on the same page that during sixteen years' experience in a cavalry regiment he saw only three cases of rider's sprain, and that in his opinion it can only occur when the muscles are wanting in tone. He also questions Mr. Morris's theory as regards the lawn tennis arm, Mr. Morris never having met with it in racquet players, with whom the back stroke is frequently practised. He attributes it to the great weight of the lawn tennis bat and ball.

104. *Barwell on Boro-glyceride in Surgery.*—In the *Brit. Med. Jour.*, Aug. 1882, p. 362, is a paper by Mr. Richard Barwell on the advantages of boro-glyceride as an antiseptic as compared with carbolic acid. The disadvantages of the latter are chiefly that it is a poison, sometimes producing dangerous effects, but also that its mode of application by the spray-apparatus is at the best of times clumsy, and in country or military practice almost impossible from the difficulties of transport; whereas boro-glyceride can easily be carried about, and all that is required is to make a 5 per cent. solution of it in water, wash out the raw surface with this, and dress it with lint and bandages soaked in it; the dressings need only be changed once in every three or four days. Mr. Barwell cites twelve cases, in all of which the healing of the wound was marvellously quick; he has also used it as an injection into the bladder in cystitis, when it acted like a charm. The absence of a spray wetting everything during operating, the simplicity of arrangement, the ease and celerity of dressing the wound, render this compound particularly well adapted for military surgery and for practice in rural parts.

105. *Thomson on Refractive of Patella.*—Mr. William Thomson read a paper at the annual meeting of the British Medical Association in Worcester, reported in the *Brit. Med. Jour.* for Aug. 1882, p. 358, reviewing the treatment of fractured patella, and describing a remarkable and probably unique case of a man who had been treated for fractured

patella in Amsterdam, and came under the late Mr. Amplett's care three weeks afterwards. Mr. Amplett, seeing that his limb was useless from the separation of the fragments, resected the broken fragments, and brought them together by stout silver wire passed through holes drilled in the ends of the bones. Bony union took place, but the joint became stiff. About a year afterwards this man caught his foot on a mat, and in the effort to save himself from falling, felt something snap, and fell. He was placed under Mr. Thomson's care, who found a great gaping wound running directly across the knee, the patella broken transversely, and the interior of the joint exposed. Resection of the knee-joint was performed with a very good result. The patella was found to be fractured nearly on the line of the old injury; the two pieces had united by bone for about two-thirds the distance across. Mr. Thomson points out that patients who have their patellæ united by sutures are peculiarly liable to stiff joints, and that in this condition a similar accident as that described may occur. In his opinion resection of the patella, though sometimes justifiable in old cases in which the fragments are far apart, is unnecessary and dangerous to limb and life in recent accidents.

106. *Skirving on Fatty Emboli occurring after Fractures.*—Mr. Scot Skirving reports a case in the *Lancet*, Oct. 1882, p. 367, of a man, aged 40, suffering from a compound fracture of both bones of the leg. The external opening was very small, and was dressed antiseptically. During the next day the patient, while talking to a man in the next bed, ceased to speak, and it was noticed that something had gone wrong. The pulse was 130 a minute, full and soft; respiration 24, regular; the face was dusky, the lips pale. He was unconscious. The rates of the pulse and respiration and the temperature gradually rose till he died, which happened early the next morning, the temperature rising after death to 105° 8'. After death numerous punctiform hemorrhages were found in the endocardium of the left ventricle and on the pleural surface of the lungs. Fat- and oil-globules were found in the vasa recta and different vessels of the glomeruli. The brain was not examined. Mr. Scot Skirving has observed two similar cases occurring in elderly women, culminating in dyspnoea and death. The only treatment he recommends is of a prophylactic nature—*i.e.* to avoid handling the part as much as possible, as any cases sufficiently severe to be diagnosed as being due to fatty emboli are beyond remedial agents.

107. *Barker on Varicocele.*—Mr. Arthur Barker records in the *Lancet*, Sept. 1882, p. 521, a new method he has used with complete success for the radical cure of varicocele. It was first suggested by the fact, that, having removed the enlarged right half of a thyroid gland with strict Listerian antiseptics, using seventeen silk and six catgut ligatures, the wound healed rapidly, and not one of either the catgut or silk ligatures have since come away, or given any evidence of their presence under the skin. Three cases of varicocele were operated on in the following manner. The skin and instruments were washed in a 5 per cent. solution of carbolic acid, and the veins tied with two silk ligatures, these being cut short, and allowed to slip back into the scrotum; no spray was used, but everything was freely sponged over with carbolic water. Only a trifling swelling followed. All three cases left the hospital in less than a fortnight, and though a year has elapsed,

have remained well ever since. The ligatures can be felt as small subcutaneous knots, giving absolutely no trouble to the patients.

108. *Southam on Excision of the Pylorus.*—In the *Brit. Med. Jour.*, July 1882, p. 163, Mr. F. A. Southam records a case of a patient suffering from the symptoms of cancer of the pylorus. As he was rapidly losing flesh, and the tumour, from its locality and mobility, was thought to be limited to the pylorus, it was considered a suitable case for operation. The tumour being exposed by a transverse incision, the pylorus was isolated from the large and small omenta, and was then excised, the opening in the stomach closed with twenty-one silk sutures, leaving a small aperture below, into which the duodenum was sewn, the abdominal cavity was then sponged out, and the external wound closed. The patient survived the operation only fourteen hours. At the *post mortem* examination, there was slight injection of the parts in the neighbourhood of the stomach, and a quantity of bloody serous fluid was found in the peritoneal cavity. The pylorus was entirely surrounded by the growth, which was a scirrhous cancer; the pyloric opening was so obstructed as barely to admit the tip of the finger. Mr. Southam attributes death to septic collapse, and will, if he be ever called on to do the operation again, introduce one or two drainage-tubes into the abdominal cavity through the external wound. This is the first time this operation has been performed in England.

109. *Dobson on Amputation in Senile Gangrene.*—In the *Brit. Med. Jour.*, July 1882, p. 129, Mr. Nelson Dobson reports a case of senile gangrene of the foot, for which he performed amputation with success. The patient, a male, aged 62, at the time of the operation appeared moribund from blood-poisoning, the result of absorption of septic matter from the gangrenous part. Two similar instances are mentioned; and from the success attending these, Mr. Dobson suggests that amputation might be performed, when the patient was not extremely aged, in which the pain was very severe, the gangrene rapidly spreading, and in which marked symptoms of putrid poisoning were manifesting themselves; but that amputation is not admissible if the patient's strength be fairly good, there being a hope of a line of demarcation forming, or when the pain is controllable by opium, and symptoms of septic poisoning are absent. Mr. Dodson insists on the use of antiseptic precautions in all cases, believing that that is just sufficient to turn the scale in favour of amputation.

110. *Spanton on the Immediate Cure of Inguinal Hernia.*—Mr. Spanton, in the *Brit. Med. Jour.*, July 1882, p. 125, gives the outlines of nine cases of inguinal hernia cured by operation, making a total of thirty cures out of thirty-four cases operated on. In each of the cases recorded as cured, the patient follows his usual occupation without wearing a truss or support of any kind. The only apparent alteration in treatment from the previous category of cases is in one in which a chronic catgut ligature was used; this, instead of being absorbed, remained hard and wiry, and, at the end of three weeks, being loose, was removed. The operation is most suitable in those cases occurring in young patients. One child, aged only five months, suffered from no constitutional disturbance, and made a good recovery. With such satisfactory results, Mr. Spanton deprecates the usual advice given to a patient suffering from hernia to 'procure a truss,' which is, at its best, a source of constant anxiety to its wearer.

111. *Cheyne on the Abortive Treatment of Gonorrhoea by Iodoform.*—Mr. W. Cheyne reviews in the *Lancet*, Aug. 1882, 175-213, the various means of cutting short an acute attack of gonorrhoea, giving his experience as to the quickest method of bringing about this result. By the means usually recommended, the injection into the urethra of a solution of nitrate of silver, tannic acid, wine, &c., an attack of gonorrhoea generally lasts from four to six weeks, to say nothing of the agonising pain and inflammation usually caused by this supposed abortive treatment. Mr. Cheyne has found after long experience that, to bring an acute attack to the chronic stage as quickly as possible, the best means are the introduction into the urethra of a rod, made of eucalyptus oil, iodoform, and cocoa-butter, to be retained as long as possible, and the internal administration of copaiba; when the rod can no longer be retained, a solution of sulpho-carbolate of zinc is to be used as an injection. This not only cuts short the acute inflammatory type, but leaves the discharge in a condition very amenable to treatment, so that the patient gets rapidly well with suitable remedies.

112. *Coely on Dislocation of the Fifth Cervical Vertebra: Recovery.*—Mr. Coely, in the *Lancet*, Oct. 1882, p. 619, gives the notes of the following case. C.K. fell backwards from a hayrick on to the ground (a distance of between twenty and thirty feet), was picked up insensible and conveyed to the Bucks Infirmary. On admission, the patient was partially insensible, with complete paralysis of the upper and lower extremities, and breathing slightly abdominal; the pupils were equal but rather dilated. After a short time, the patient became more sensible, and complained of great pain at the back of the neck, with numbness of the arms and feet, and difficulty of breathing. Strict rest was ordered, and, for a time, the patient showed no serious symptoms, but after about an hour-and-a-half the man rapidly became worse, and the house-surgeon, Mr. Van Buren, saw that unless something were done at once he would shortly die, and a more careful examination discovered that the spinous process of the fifth cervical vertebra was very prominent. Getting a nurse to steady the patient's head, he placed his two thumbs on each side of the projection, and with the other parts of his hands, taking a firm grip of the neck above the clavicles, applied gradual pressure, whilst the nurse slightly elevated the head. The vertebra went in with a distinct snap, and all prominence disappeared. The patient at once became sensible, within two hours moved his arms and legs, had no rise of temperature above 100° Fahr., and made a rapid recovery.

113. *Tait on Cholecystotomy.*—Mr. Lawson Tait, in the *Brit. Med. Jour.*, Nov. 1882, p. 990, reports two more cases in which he has performed this operation. The notes of one case are given. The patient, a lady aged 28, had suffered many years from paroxysmal pain in the right side, associated with a tumour, which was considered by some to be a floating kidney, with a calculus in its pelvis. Mr. Lawson Tait, however, banished this idea from his mind, and diagnosed a distended gall-bladder due to occlusion of the duct by a gall-stone. He proposed an operation which, after some delay, was agreed to. The abdomen was opened by a vertical incision over the tumour, and the distended gall-bladder aspirated of about a pint of glairy mucus; it was then laid open, and about eighty gall-stones of small size (the largest weighing 15

grains) were removed chiefly by means of a curette. The wound was not dressed by Lister's method, and healed without any rise of temperature above 100.4° F., but a fistula remained. Within two months of the operation bile flowed freely from the fistula, showing that the occlusion of the duct had been overcome, and that the complete functions of the organ would be re-established by the closure of the fistula. The second case had only been lately operated upon, so that no notes are given.

113. *Bellamy on Contracted Fingers*.—Mr. Edward Bellamy, in the *Lancet*, Sept. 1882, p. 439, reports a case of a man who, having previously scratched one of his little fingers with a meat-bone, presented himself with the tip of the finger so tightly approximated to the palm that no force could separate it. The strong fibrous bands binding it down were divided, but they subsequently reunited, so that there was no good result from the operation. The man was then placed under an anæsthetic, and the whole of the cicatrix excised, and the tendon divided under antiseptic precautions. The finger was retained in a straight position by a steel spring carried up the dorsum and suitably attached to it. When the wound was healed, active and passive movements were commenced. This procedure brought about an excellent result, the finger being as straight as the others.

115. *Berridge on Anæsthesia by Rapid Breathing*.—Mr. Berridge, in the *Brit. Med. Jour.*, Nov. 1882, p. 1038, gives three cases illustrating the value of producing anæsthesia by rapid breathing. In one case he was unable to reduce a dislocation of the shoulder until he made the patient breathe hard and rapidly. The second case was a patient with an inguinal hernia which was not able to be reduced until rapid breathing had been employed. A third case was that of a youth of 18, who had dislocated the humerus, and nothing could be done in the way of reducing it until the rapid breathing was tried. Mr. Berridge adds that it is very hard to bring the patients up to 'concert pitch,' and that the surgeon must exert himself in showing the way how to do it, almost as much as the patient, in order to produce complete relaxation of the muscles.

116. *Baudry on Testis in Perineo*.—Dr. Baudry reports in the *Lancet*, Sept. 1882, p. 454, having recently met with a case of the rare malformation in which the testicle, instead of passing into the scrotum, passes down into the perineum. The subject of the deformity was a new-born child, in other particulars well developed and well nourished, but the right testicle was found two centimetres in front of the anus, and covered by normal skin. There was no sign of dartos on the right side of the raphe, which deviated to the right, where the testicle should have been. The great peculiarity of the testicle was that it was not movable, this not having been recorded in connection with other recorded cases.

RICHARD NEALE, M.D.

117. *Thelen on Nephro-lithotomy in a Case of Aschuria*.—This case is reported by Dr. Thelen in the *Centralbl. für Chir.*, No. 12, 1882 (abstract in *Centralbl. für die Med. Wiss.*, Dec. 30, 1882). The patient, aged 27, who had been suffering from spasmodic stricture, became the subject, during an attempt at dilatation of the urethra, of an accidental fracture of an elastic catheter, a portion of which passed into the bladder. Violent inflammation was excited in the bladder, and an abscess formed in the left iliac fossa. The abscess, opened

with antiseptic precautions, was behind the peritoneum and connected with the pelvis of the kidney. It was almost entirely healed within five weeks, when suddenly rigors and suppression of urine occurred. The catheter brought away only mucus and a small calculus. Destruction of the left kidney and closure of the right ureter by a calculus were diagnosed. Dr. Bardenheuer, as the only means of saving the patient's life, determined to remove the calculus; for which purpose an incision was made, extending from the eleventh rib to the crest of the ilium. In order to reach the pelvis of the kidney and the ureter, it was necessary to detach the anterior border of the kidney from its cushion of fat, by the hand. The instant that the stone was felt in the hilus it slipped back into the pelvis of the kidney, and the flow of urine through the ureter showed that the passage between the bladder and the kidney was free. In order to maintain this favourable position of the organ as long as possible, the kidney was drawn backwards and outwards, so that the pelvis was visible at the bottom of the wound. An incision was made into the commencement of the ureter; a calculus about the size of a bean and four smaller pieces were removed, and the operation was concluded by sutures in the edges of the incision in the ureter. The urine, however, passed not through the ureter, but by the wound. Four days later Dr. Bardenheuer determined (as the urine continued to trickle out) to divide the ureter, and to fix the upper end in the wound. One month after the operation the urine passed through this artificial ureter; the wound was uniting at parts where the urine did not come into contact; the patient, though feeble, was recovering.

118. *Bradford on a Painful Affection of the Wrist*. In the July number of the *New York Med. Jour. and Obstet. Rev.*, Dr. Edward H. Bradford, surgeon to out-patients, Boston City Hospital, relates three cases of a painful affection of the wrist, the features of which were: pain referred to or most severe at the middle of the carpus; slight swelling; an absence of constitutional disturbance, and no interference, or but partial interference, with motion of the articulation between the carpus and the radius and ulna. The symptoms were relieved by fixation, and recovery took place finally after a period of rest. Judging from analogy, Dr. Bradford remarks, it seems probable that the cases here reported were similar to a degree to a synovitis of the medio-tarsal joint, described by Gosselin under the term tarsalgia adolescentium; differing somewhat in their course from the fact that the wrist, a part easily immobilised from the first, and not the tarsus, was affected. Leaving out of account the smaller synovial membranes of the carpus—i.e. those between the pisiform bone and the cuneiform, the trapezium and the metacarpal bone of the thumb, the ulna and the fibro-cartilage at the joint—there are two large synovial sacs—viz., that between the main carpal bones and the radius and cartilage covering the ulna, and that between the main bones of the carpus, of which the os magnum is the larger and central bone. From the symptoms in the cases reported, the author thinks that the inflammation was one affecting this latter synovial sac, and limited to this alone, and that they may therefore be termed cases of synovitis of the carpus.

119. *Heusner on a Case of Wound of the Heart*.—Dr. Heusner (*Deutsche Med. Wochenschr.*, and *Centralbl. für die Med. Wiss.*) relates the

case of a workman who had been stabbed with a knife-blade about six inches in length. The knife entered the chest about three-quarters of an inch from the nipple, and about two inches from the left border of the sternum. The patient immediately afterwards walked about fifteen steps, and remained for some hours without any variation in the heart's sounds or movements, except feebleness of the pulse. On the following day restlessness and difficulty of breathing came on, and death occurred sixty-three hours after the receipt of the injury. The necropsy showed the left pleura distended by the uninjured lung. The knife-blade had passed through the pericardium, and had pierced the anterior wall of the right ventricle, the puncture ending between the columnæ carneæ of the posterior wall. The puncture on the anterior was triangular and gaping, but on the internal surface it was slit-like, and more than an inch in length. The pericardium contained between five and six ounces of semi-coagulated blood. An old adhesion to the lung had prevented its escape into the pleural cavity. The left pleura, as also the right, which was uninjured, was filled with fluid blood. Death took place, the author considered, from gradual infiltration of blood into the pleuræ; and he further supposed it possible for the patient to have escaped with his life, had the old adhesion been firm enough to prevent subsequent effusion of blood into the pleural cavities.

W. B. KESTEVEN, M.D.

120. *Wölfler on the Operative Treatment of Cancer of the Tongue.*—Dr. Wölfler (Langenbeck's *Archiv*, Band xxvi., Heft 2) says that, from the year 1871 to the end of 1876, forty-two cases of carcinoma of the tongue were operated upon in Billroth's Clinic. Of these fifteen died (35.4 per cent.) in consequence of the operation. From 1877 to 1881 forty-five cases were submitted to operation; of these nine proved fatal (20 per cent.). All the patients were men. Out of 115 cases of cancer of the tongue treated at the Clinic, only four of the patients were women (3.4 per cent.). In cancer of the floor of the mouth, it was found that glandular enlargement took place in the submaxillary region, while in cases in which the tongue itself was affected, the retromaxillary glands were those implicated. It was also found that, in the treatment of lingual carcinoma by palliative measures, the average duration of life was thirteen to fourteen months, while by operative measures the period was lengthened to nineteen and twenty-one months. According to the estimation of authors the prognosis of cancer of the tongue, as regards immediate mortality, is not so unfavourable as in rectal carcinoma.

During the last three years Dr. Billroth's improved method of operating has been in vogue, and the statistics show that the fatal cases during that period amounted to 17.6 per cent., while in previous years the mortality was 32 per cent. The best proof of the utility of the present operative measures is, that many cases of widely spread disease of the tongue and floor of the mouth have remained perfectly well after healing was complete.

The steps of Billroth's method are as follows. Both lingual arteries are first ligatured; the mouth is then kept open by a speculum, and all diseased teeth opposite the ulceration are extracted. The gum is next separated from the inside of the lower jaw with the raspatory. Excision of the floor of the mouth is then effected by means of scissors and forceps.

The bleeding points are ligatured, and the tongue, being drawn forward, is finally extirpated. After the separation of the organ, permanganate of potash, either in powder or in watery solution, is applied to the wounded surface, and a drainage-tube, of the thickness of a finger, is inserted through the floor of the mouth. Through this the various discharges escape, and diphtheria of the mouth, cervical phlegmon, and broncho-pneumonia do not occur in such cases when properly drained. The patients are fed by means of a stomach-tube, until the drainage opening has quite closed.

The proceeding is not so severe as the methods of Langenbeck and of Kegnoli and Czerny; and the immediate results of the operation are more favourable than by any other plan, viz.—84.2 per cent. of recoveries. The deaths were caused by septicaemia (acute or chronic) or by pyæmia. In seventy-one cases ten radical cures have been obtained (14 per cent.) by Professor Billroth; while in 373 instances of mammary excision, only fifteen radical cures have resulted.

121. *Pfeilschneider on the Antiseptic Treatment of Transverse Fracture of the Patella.*—Dr. Pfeilschneider (*Archiv für Klin. Chir.*, Band xxvi., Heft 2) describes the following case. A man, 35 years of age, of weakly constitution, sustained a transverse fracture of his right patella. Forty-eight hours after the accident, the joint was opened antiseptically by a longitudinal incision, all the coagula and *débris* removed, and the interior washed out with a 5 per cent. solution of carbolic acid. Two holes were then bored in each of the fragments, through which silver-wire sutures were inserted, and the bones approximated. Two drainage-tubes were then passed under the patella and made to protrude one on each side of the joint. The limb was then fixed in a splint. The eighth day after the operation, the leg could be freely raised, and, on the same day without permission, the patient made a trial step. No pain was experienced. On the twenty-first day the dressings were left off, as nothing but a small fistulous opening remained. The joint then presented a normal appearance, and could be extended as freely as on the sound side. The fragments of the patella were closely and firmly approximated, and during extension the leg and quadriceps moved in a normal manner. On the twenty-fifth day, the man was able to get about without pain. In seven weeks from the accident, he resumed his work as a locksmith. At the end of half a year there was no separation of the bone; flexion was also good, and, at the termination of a year, the leg could be bent to an angle of 70°, as compared with 75° on the sound side. The connecting wires could be felt covered by the skin, but they occasioned no inconvenience.

T. F. CHAVASSE, M.D.

122. *Angelini on Aneurism of the Brachio-cephalic Trunk Cured by Injections of Ergotin.*—The subject was one Raphael Beretti. One brother, 54 years of age, died of aneurism of the thoracic aorta, diagnosed thirty-four years before death; it gave him no trouble until the last few months of his life. Another brother died of chronic heart-disease (?), the father of anasarca. In the subject of this history there was developed slowly and unnoticed a diffused true aneurism of the arch of the aorta, of the brachio-cephalic trunk, of the subclavian and right carotid; to this succeeded a false sacciform aneurism of the brachio-cephalic trunk. The cure appeared hope-

less, but Dr. Angelini determined to try injections of ergotin, repeated twice a day for a week, then every two days, every three, every five, and so on for about three months. After four months, the aneurism was reduced to half, being hard and firm, and the patient was able to resume work. Dr. Angelini comes to these conclusions. 1. Certain aneurisms, even of arteries of large calibre, of slow growth, can exist unobserved by the patient for many years. 2. Chronic diseases of the arteries, of the cardiac valves, and of the endocardium, have an hereditary predisposition, and are not always due to the abuse of stimulants. 3. His case encourages us to try hypodermic injections of ergotin in all such cases, as well as in aneurisms of small arteries.

123. *Bigi on Resection of the Pylorus.*—The operation (*Gazz. Med. Ital.*, Nov. 11, 1882) was performed by Professor Bigi, in the Civil Hospital of Perugia, on a woman aged 38. Cancer of the pylorus was diagnosed by Professor Riva. The patient was much exhausted, and for some days had only taken food by the rectum. The operation was performed with antiseptic precautions, but the spray was not used. The abdominal parietes were incised to the right of the middle line; the tumour was exposed and drawn forward, with a good part of the stomach and duodenum, and was removed. Thirteen ligatures were applied; and, by a special suture, the stomach was reunited to the duodenum. Before commencing the operation, a hypodermic injection of morphia was given; the administration of chloroform was begun, but had to be suspended from the increasing debility of the heart's action. The operation lasted two and a half hours, and the patient bore it well. The temperature for a few hours in the evening reached $38^{\circ}\frac{1}{2}$ C. (nearly 101° F.). For the next three days (when the case was reported) it was normal, and all went well, giving every hope of a speedy cure.

124. *Poggi on Surgical Dilatation of the Pylorus.*—In an individual suffering from pyloric stenosis from a cicatrix, Professor Loreta, of Bologna, after having made an incision in the epigastrium, and opening the stomach, mechanically dilated the pylorus. The result was most successful, since, on the seventh day, the phenomena caused by the stenosis had disappeared, and the patient was going on well in every way. G. D'ARCY ADAMS, M.D.

125. *Heustis on Injection of Carbonic Acid Gas in Intestinal Obstruction.*—The *Medical News* of June 3, 1882, contains the record of a case of ileus treated by the above method, by Dr. Heustis, of Mobile. The patient, a woman recovering from an attack of puerperal fever which had lasted three weeks, was attacked with violent pain in the abdomen, and complete obstruction, accompanied on the second day by stercoraceous vomiting. Cathartics having failed to open the bowels, she was treated for seventeen days by the administration of anodynes and calomel (Morphiæ hydrochlor. gr. j.; extracti belladonnæ gr. 4; hydrarg. subchlor. gr. iiss, every two hours; later 12 of these pills lasted two or three days), while poultices were applied to the abdomen, and enemata of soap and water, or ox-gall and water, were given daily. During this time she suffered much, sleeping for short periods only, and the stercoraceous vomiting continued. Nevertheless, the expression of countenance was good, the belly remained soft, and no spot could be localised as the

seat of obstruction. On the seventeenth day, abdominal section was determined on, but sufficient aid was not to be had, and the next day the condition was such as to encourage the further trial of enemata; injections of ox-gall and melted lard were thrown up a tube eighteen inches in length but without effect. Dr. Heustis then got the husband to procure an ordinary seltzer siphon, and, this being connected with the long rectum-tube, the lever was depressed and the contents allowed to pass into the intestines. On the first day no result ensued, although the patient declared that some of the gas escaped into her mouth, but on the second trial, before the bottle was half empty, fæces began to escape by the side of the tube, and in a short time the bowels were completely relieved. After this, no further trouble was experienced, the bowels acting daily.

Notwithstanding the large amount of calomel administered, the patient was not salivated, probably from the fact that the majority of it must have been vomited up. No details are given as to the means taken to maintain the nutrition of the patient. Dr. Heustis considers the case as probably one of spasmodic ileus, although the symptoms might be as well explained by a diagnosis of obstinate constipation following puerperal peritonitis.

G. H. MAKINS.

126. *Weir on the Treatment of Gangrene of the Intestine.*—At a recent meeting of the New York Medical and Surgical Society (*New York Medical Journal and Obstetrical Review*, Oct. 1882) Dr. Weir raised the question of treatment in intestinal gangrene by relating the following case. About ten days ago a woman, aged 35, was seen by him in consultation. Her physician stated that on May 10 last she was seized with colicky pains and vomiting. Passing his hand over her abdomen, he could discover no hernial tumour, but, as there was apparently intestinal obstruction, he gave opium freely, and repeatedly administered enemata. After four or five days a free movement of the bowels took place, and she felt relieved. He discovered, the day before Dr. Weir saw her, a tumour in the left groin, and the patient then told him that this had first appeared, although temporarily, the preceding August. Dr. Weir found, on examination, that the tumour had all the signs of a stercoraceous abscess just below the femoral opening on the left side. On incising it, fetid pus and fecal matter were discharged. The sphacelated portion of gut, about an inch long, was laid open freely, and, as the fæces had free vent, nothing further was done. The patient was entirely relieved, and the sloughing cellular tissue had since come away, leaving a fistula discharging biliary matter. Dr. Weir thought that an artificial anus in this locality would be more likely to heal than if it had been at the site of an inguinal hernia. He found that the statistics of resection of gangrenous intestine, as done by Czerny and Gussenbauer, gave only about 35 per cent. of recoveries. He asked whether it were better simply to slit up the strangulated portion of intestine, hoping that the artificial anus would heal of itself, or, as had more commonly been done of late, to remove the gangrenous portion, and unite the upper and lower healthy segments. He believed that the older method would be preferable in most cases, and that the resection would be suitable for gangrene, either where it was so recent as to be unguarded by adjacent adhesions, or was due to an internal strangulation.

127. *Allis on the Cure of Hip-Joint Disease.*—Dr. O. H. Allis read a paper before the Philadelphia County Medical Society on the above subject, of which the *American Practitioner* for May gives an abstract. Dr. Allis insists upon the necessity of preserving absolute immobility of the joint until the inflammation has completely subsided, even at the cost of ankylosis. He illustrates this point by relating three cases, in which he was induced to set up passive motion, after subsidence of the acute symptoms, in order to restore motion in the joint. The result, uniformly, was relapse, followed by death in two cases, with a very narrow escape in the third. In regard to position of the limb in fixation, he compares the disadvantages of the straight extension in sitting down with the flexion at a right angle for walking; and he concludes that a compromise between the two conditions on the whole presents least inconvenience. The shortening, which follows disuse and arrest of development, is regarded as an advantage by favouring locomotion.

128. *Mariani on Transfusion of Animal's Blood.*—Two cases of transfusion of animal's blood are described by Dr. Mariani, of Madrid, in *El Siglo Médico* of Sept. 24. In both, the mediate method was employed. The blood used was obtained by cutting the carotid artery of a kid; it was then defibrinated and injected into the median cephalic vein by means of Collin's transfusion-apparatus. The transfusion was performed in the first case for excessive metrorrhagia ten days after the patient, a girl twenty years old, had given birth to twins; in the second, for hæmorrhage from a sloughing scalp-wound. In both cases a temporary improvement is reported, but death occurred about thirty-six hours after the transfusion, preceded by severe rigors.

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

129. PATELLA.—Resorcin. (*Gazz. Med. Ital. Prov. Venete*, Oct. 14, 1882.)
 130. DE RENZI AND RUMMO.—Inhalations of Iodoform and Turpentine. (*Ibid.*, Oct. 7, 1882.)
 131. BAREGGI.—Special Indication for the Administration of Salicylate of Soda in Typhoid Fever. (*Gazz. Med. Ospitali*, Dec. 3, 1882.)
 132. GINÉ, ARMENQUE, AND ARANJO.—Bicarbonate of Soda in Acute and Chronic Tonsillitis. (*União Med.*, Rio de Janeiro, 1882.)
 133. WASLIEFF.—The Influence of Calomel on Peptic Fermentation and the Vitality of Lower Organisms. (*Centralbl. für die Med. Wiss.*, Nov. 4, 1882.)
 134. JARISCH. Pyrogallic Acid in some Skin-Diseases. (*Centralbl. für die Ges. Therap.*, Jan. 1883.)
 135. GILLES DE LA TOURETTE.—The Hypodermic Use of Iodide of Potassium. (*Le Progrès Méd.*, No. 1., 1883.)
 136. JAMES.—On Dialysed Iron. (*Med. Times and Gazette*, Dec. 1882, p. 659.)
 137. POST.—Large Injections of Nitrate of Silver in Chronic Dysentery. (*Lancet*, Dec. 1882, p. 936.)
 138. BROWNE.—The Therapeutic Effects of Hyoscyamine. (*Brit. Med. Jour.*, Nov. 1882, p. 1030.)
 139. SIMPSON.—The Action of Hyoscyamine. (*Brit. Med. Jour.*, Dec. 1882, p. 1148.)
 140. RODEN.—The Brine-Springs of Droitwich. (*Brit. Med. Jour.*, Nov. 1882, p. 990.)
 141. ELLIOTT.—Chamomile Tea in Infantile Diarrhoea. (*Practitioner*, Dec. 1882, p. 426)

142. CAUTY.—The Internal Use of Chrysophanic Acid in Psoriasis. (*Lancet*, Dec. 1882, p. 935.)
 143. MYERS.—The Treatment of Rheumatism by Blisters. (*Brit. Med. Jour.*, Nov. 1882, p. 985.)
 144. RALFIE.—Sodium-Nitrite in Epilepsy. (*Brit. Med. Jour.*, Dec. 1882, p. 1095.)
 145. SPENDER.—Local Application of Tannin in Erysipelas. (*Brit. Med. Jour.*, Dec. 1882, p. 1147.)
 146. Fowlwort: a new Vegetable Styptic. (*Lancet*, Oct. 1882, p. 716.)
 147. HUDSON.—Eucalyptus Rostrata as a Remedy for Diarrhoea. (*Lancet*, Dec. 1882, p. 1029.)
 148. Death during Administration of Dichloride of Ethylene. (*Brit. Med. Jour.*, Dec. 1882, p. 1267.)
 149. COLLIER.—Croton-Chloral as a Soporific. (*Brit. Med. Jour.*, Dec. 1882, p. 1238.)
 150. COULDREY.—Salicylate of Soda in Scarlatina. (*Lancet*, Dec. 1882, p. 1064.)
 151. HARRIES.—Boric Acid in Diphtheria. (*Lancet*, Dec. 1882, p. 1004.)
 152. WORTABET.—Oil of Turpentine in Egyptian Endemic Hematuria. (*Lancet*, Dec. 1882, p. 979.)
 153. READ.—Gelsemium Sempervirens in Tetanus. (*Brit. Med. Jour.*, Dec. 1882, p. 1245.)
 154. WILSON.—Curative Effect of Chloral in Albuminuria. (*Brit. Med. Jour.*, Dec. 1882, p. 1247.)
 155. SAYELJEFF, M. V.—On the Therapeutic Use of Clay. (*Travels*, 1882, No. 16, pp. 261-2.)
 156. SCHNAUBERT.—On a Case of Graves' Disease treated by Milk-Diet. (*Botkin's Ephem. Klin. Gaz.*, 1882, No. 13.)
 157. KACZYNSKI.—On Petroleum in Small-pox. (*Przegląd Lekarski*, 1882, No. 13.)
 158. BANATYALA.—The Use of the Syzygium Jambolanum in Diabetes. (*Milani Med. Miscellany*.)
 159. DUVAL. Turpeth Mineral in Croup. (*Philad. Med. and Surg. Rep.*)
 160. EULENBURG.—Subcutaneous Injections of Various Salts of Silver. (*Trans. German Med. Congress*, 1882.)
 161. CARTER.—Ca-cara as a Laxative.

ART. 120. *Patella on Resorcin.*—Vicenzio Patella says (*Gazz. Med. Ital. Prov. Venete*, Oct. 14, 1882) that chemically pure resorcin, which alone ought to be used medicinally, occurs in white shining needles, which do not alter after long exposure to the air. It has an aromatic (benzoin) odour, bitter taste, and is very soluble. Its solution is neutral, becoming brown, more or less deep, according to its concentration, when left in open vessels. Pure resorcin with perchloride of iron gives a beautiful deep violet colour; its solution with sulphate of soda is coloured intense ruby red when treated with perchloride of iron. It may be prescribed in all cases where an antiseptic is useful. In articular rheumatism and typhoid fever it reduces the temperature, but not so much so as other remedies. In remittent and intermittent fevers it is especially useful. According to Lichtheim it is a specific in malarial fevers, and reduces even chronic splenic tumour. In infantile diarrhoea it has given splendid results in doses of 10 to 30 centigrammes in 60 grammes of water. Its most important uses are, however, external, as a substitute for carbolic acid (Dujardin-Beaumetz). It is much less poisonous, it has no disagreeable smell, and no causticity. It is very useful in affections of the eye. The dose is from 2 to 6 grammes in solution; it may be given by the rectum, which readily absorbs it in the same doses. It is eliminated by the kidneys; therefore, when these are diseased, it must be given with more care.
 130. *De Renzi and Rummo on Inhalations of Iodoform and Turpentine.*—The patients (*Gazz. Med. Ital.*

Prov. Venet., Oct. 7, 1882) were made to inhale twice a day for two hours, in a small room, the spray of iodoform and turpentine. The effects were more satisfactory than with any other mode of treatment. There was always prompt and considerable diminution of cough and expectoration; in bronchiectasis the fetid expectoration was completely deodorised. Physical signs diminish, the temperature falls, pulse and respiration are less frequent. The secretion of urea is lessened in proportion to the fall of temperature. Iodoform given by inhalation is much more prompt in action than when taken by the stomach; it is an anæsthetic to the pulmonary vagus, and has an alterative and drying local action, which is aided by the turpentine. Its antiseptic action must also be taken into account.

131. *Bareggi on a Special Indication for the Administration of Salicylate of Soda in Typhoid Fever.* Bareggi (*Gazz. degli Ospitali*, Dec. 3, 1882), having noticed in all cases of acute articular rheumatism treated by him with salicylate of soda, that obstinate constipation occurred after two or three days' treatment, determined to utilise this action of the salicylate, in typhoid fever with profuse diarrhoea. He found it to answer admirably; the diarrhoea ceased after two or three days, and the disease ran a favourable course. The salicylate may be given in larger doses than in rheumatism, without any bad effects on the digestive or the nervous system.

132. *Giñé, Armenquê, and Arango on Bicarbonate of Soda in Acute and Chronic Tonsillitis.*—Drs. Giñé, Armenquê, and Arango (*União Médica*, Rio de Janeiro, 1882) have experienced in numerous cases the surprising efficacy of bicarbonate of soda, applied either as powder by insufflation, or in concentrated solution with a brush, in acute tonsillitis, and in hypertrophy of the tonsils consecutive to repeated angina. The effect is prompt; in twelve hours the greatest improvement is obtained, in whatever period of the complaint the treatment is commenced.

G. D'ARCY ADAMS, M.D.

133. *Wasilieff on the Influence of Calomel on Peptic Fermentation and the Vitality of Lower Organisms.* Dr. O. P. Wasilieff (*Centralbl. für die Med. Wiss.*, Nov. 4, 1882) says that the solution of fibrin and its conversion into peptone by artificial gastric juice is interfered with by the addition of a certain quantity of calomel, whilst the products of decomposition of fibrin, indol, phenol, &c., are also absent in the presence of calomel. In the absence of calomel, the decomposition is attended with the disengagement of sulphuretted hydrogen, whereas with the calomel the disengaged gas is inodorous, and contains a larger proportion of carbonic acid. In like manner, the decomposition of albumen and butyric acid is arrested by calomel. The researches of Pasteur also have shown that calomel hinders the development of lower organisms in nutritive fluids, and destroys the vitality of already developed bacteria. The green colour of the stools after administration of calomel is in like manner attributed by the author to arrest of changes in the bile. In conclusion, Dr. Wasilieff relates the experiment of administering calomel to a dog, and then killing it. The intestines were found to contain leucin and tyrosin, but indol and phenol were absent.

134. *Jarisch on Pyrogallie Acid in some Skin-Diseases.*—Dr. Jarisch (*Centralbl. für die Ges. Therap.*, January 1883) employs in psoriasis an ointment of from 5 to 10 per cent. of pyrogallie acid.

The scales being washed off the surface with warm soap and water, the patches of disease are painted over with the ointment by means of a bristle-brush. The patient is clad in a flannel dress, and the ointment is applied at least once, sometimes twice, daily. A bath is used once a week, the ointment being omitted on that day. Slight erythema usually follows the application of the ointment, and when this ceases the ointment may be discontinued, and the surface simply dusted with starch-powder. An inconvenience sometimes attending the use of pyrogallie acid is a brown discoloration of the skin, especially of the palms of the hands. Soap intensifies the brown colour. Pyrogallie acid possesses antiseptic properties, and destroys fungoid growths. The author has seen favus and eczema marginatum rapidly cured by this application. The eczema is prone to return after apparent cure; for this he uses an alcoholic solution of the acid with glycerine.

W. B. KESTEVEN, M.D.

135. *Gilles de la Tourette on the Hypodermic Use of Iodide of Potassium.*—M. Gilles de la Tourette (*Le Progrès Méd.*, No 1, 1883) draws attention to the hypodermic use of iodide of potassium. He found that it was possible to introduce a syringeful of a solution containing 7.5 grains of iodide of potassium, carefully neutralised, without causing any irritation. In twenty injections, only one caused a slight slough. Some burning pain was complained of, which was usually readily allayed by gentle friction with the palm of the hand. The drug was readily absorbed, and could be detected in the urine on the following day. He thinks the method may be of value where there is intolerance of the drug by the mouth, or in cerebral syphilis with coma and inability to swallow medicines.

ROBERT SAUNDBY, M.D.

136. *James on Dialysed Iron.*—Dr. Prosser James, in the *Med. Times and Gazette*, Dec. 1882, p. 659, gives an article on dialysed iron, its use, administration, and chemical preparation. For practical therapeutical uses, we may say, its production depends on the results obtained by the late Professor Graham in his researches on the diffusion of liquids. The liquid obtained by dialysis differs altogether from an ordinary solution of salts of iron, and the iron is at once precipitated by sulphuric acid, by alkalis, and by many salts. Ordinary spring water will cause a precipitate; but no precipitate is produced by nitric, acetic, or hydrochloric acid; from which it is concluded that it will not be affected by the chlorides of the alimentary canal. For therapeutic use, the persalts of iron should be employed when the astringent properties are indicated, and the protosalts or other milder preparations when no astringency is required. When small doses of the vegetable salts or of reduced iron are not well tolerated, we may rely upon dialysed iron. The average dose is from seven to fifteen drops twice daily. Dialysed iron deserves notice as an antidote to arsenic, being ready when wanted, and acting as rapidly as the old remedy of the moist peroxide. As to purity, if carefully prepared, the solution is quite neutral, has no astringency, and answers to the chemical characteristics stated.

137. *Post on Large Injections of Nitrate of Silver in Chronic Dysentery.*—Dr. Post, in the *Lancet*, Dec. 1882, p. 936, gives the notes of the following cases which came under his care. A lady, age 30, was first attacked with pains in the back of the head and some confusion of the mental faculties,

which, with persistent sleeplessness, continued for about six months, when she was attacked with diarrhoea, which gradually assumed a dysenteric character; after she had suffered many weeks, the injection of nitrate of silver was tried, the strength being forty-five grains of nitrate of silver to three pints of water. Severe tenesmus and much pain with the passage of mucus and blood followed the injection, but was relieved by small quantities of opium, and in a few days a marked improvement had taken place; the number of stools was less, the pain less severe, and the patient was able to sleep for three or four hours at a time, an occasional injection of ten minims of laudanum being alone given. On the fifth day a second injection of nitrate of silver was used, which caused great pain, which laudanum injections again relieved. On the fifteenth day there had been no return of diarrhoea; the patient had been up during three afternoons, walking about the room, and feeling stronger each day.

138. *Browne on the Therapeutic Effects of Hyoscyamine*.—Dr. Thomas Browne, in the *Brit. Med. Jour.*, Nov. 1882, p. 1030, gives an account of the use, dose, and best mode of administration of hyoscyamine. He says that if given by the mouth its action is uncertain, as a small dose will have more effect on an empty stomach than a larger one may when the stomach contains food. The hypodermic method is the best, in doses beginning at one-thirtieth of a grain. Dr. Browne describes three cases in which marked benefit was gained by the occasional use of this drug in furious mania, and one case of a patient suffering from general paralysis of the insane, who was in a condition of unceasing motor activity, in whom marked effects were produced by a dose of one-thirtieth to one-fifteenth of a grain, given every day, or every other day, for about a fortnight.

139. *Simpson on the Action of Hyoscyamine*.—Dr. Simpson, in the *Brit. Med. Jour.*, Dec. 1882, p. 1148, gives the notes of two cases in which he gave hyoscyamine hypodermically in doses of one-twentieth and one-fifteenth of a grain, and produced very serious symptoms, needing the use of strong stimulants to restore the patient. Dr. Simpson has discarded the use of this drug as being too dangerous. It never does more than quiet a patient, and does not tend to stop the frequency of the attacks, having to be given periodically with every fresh outburst of violence.

140. *Roden on the Brine-Springs of Droitwich*.—Dr. S. S. Roden, in the *Brit. Med. Jour.*, Nov. 1882, p. 990, draws attention to the potency of the brine-springs of Droitwich, showing that they contain nearly ten times the amount of saline or solid matter found in sea-water. The class of ailments that derive most benefit from the use of these baths are undoubtedly those of either a rheumatic or a gouty origin; and attention is drawn to the surprising rapidity with which large dropsical swellings of joints, and thecal and bursal distensions, will disappear from the use of the hot brine-bath. Dr. Roden excludes ' hæmorrhages ' from the list of diseases which derive benefit from their use, but adds that in one form of hæmorrhage, *i.e.* chronic menorrhagia, surprising benefit has arisen, although the baths were used against his advice.

141. *Elliott on Chamomile Tea in Infantile Diarrhoea*.—In the *Practitioner*, Dec. 1882, p. 426, Dr. Christopher Elliott speaks strongly in favour of the use of chamomile tea in infantile diarrhoea. The

dose, for infants under one year, is 5ss. to 3j. and double that quantity for older children, given two or three times a day, or oftener. The rationale of the action is the power the drug possesses of subduing reflex excitability. This power belongs especially to the volatile oil contained in the flowers. A decapitated frog, previously fortified by a dose of oil, was not susceptible to the influence of strychnia, according to Grisan; who also calmed tetanic convulsions, due to strychnia, by chamomile oil.

142. *Cauty on the Internal Use of Chrysophanic Acid in Psoriasis*.—Mr. Cauty, in the *Lancet*, Dec. 1882, p. 935, refers to a paper which appeared in that journal in May 1882, and draws attention to the fact that no notice had been taken of the state of the pulse in the cases cited in the paper. In psoriasis the pulse is slower, smaller, or weaker than it ought to be, and any medicine which either ameliorates or cures this disease improves the pulse in rapidity, volume, or strength. Mr. Cauty gives notes of three cases, in which he tried chrysophanic acid with little or no benefit, and in which severe purging and vomiting was produced, and is of opinion that the benefit arrived at in the cases published in the *Lancet* was due to the constant purging produced by the drug, so that there is nothing specific in the action of the acid when taken internally.

143. *Myers on the Treatment of Rheumatism by Blisters*.—Mr. A. B. R. Myers in the *Brit. Med. Jour.*, Nov. 1882, p. 985 protests against the use of the 'garter' blister in rheumatism, on the ground that it does not cut short the attack, yet causes the patient considerable discomfort; whilst he advocates wrapping the joints in cotton-wool and binding them firmly with flannel bandages. With regard to internal remedies, Mr. Myers' experience teaches him that patients improve as quickly when taking no medicines as those to whom opium is given freely. He does not seem to place much value in salicin.

144. *Ralfé on Sodium-Nitrite in Epilepsy*.—Dr. Ralfé, in a paper read before the Royal Medical and Chirurgical Society (*Brit. Med. Jour.*, Dec. 1882, p. 1095), gives the notes on seventeen cases of epilepsy treated by sodium-nitrite, which resembles in its action nitrite of amyl and nitro-glycerine; but its effects are produced more slowly and are more permanent in character. The dose should just fall short of producing full physiological effect. Purity of the drug is essential. Of the seventeen cases three received no benefit, four improved slightly, one was a doubtful case, whilst nine benefited decidedly. The author draws the following conclusions from these results. 1. Sodium-nitrite is not suitable for those cases in which bromide of potassium is of marked service. 2. Those cases in which bromide of potassium does not agree well from the first will probably be found to improve under sodium-nitrite. 3. To patients who have taken bromide some time and in whom the drug is apparently losing its effect, or who are suffering from bromism, sodium-nitrite is useful as a change medicine. 4. There is a class of cases consisting chiefly of minor seizures or convulsive attacks, such as often occur in young persons usually at night, in which sodium-nitrite is especially beneficial. [*Id.* LONDON MEDICAL RECORD, 1882, p. 315.]

145. *Spender on the Local Application of Tannin in Erysipelas*.—Dr. Spender, in the *Brit. Med. Jour.*, Dec. 1882, p. 1147, highly recommends the

use of a solution of tannin, in equal parts of spirits of wine and water, as a local application in cases of so-called idiopathic erysipelas. The proper strength of the solution is six grains to the fluid drachm. Dr. Spender draws attention to the want felt by the medical profession of a monograph on erysipelas in its medical and surgical aspects.

146. *Fowlwort: a New Vegetable Styptic.*—In the *Lancet*, Oct. 1882, p. 716, attention is drawn to a new vegetable styptic (*Tradescantia erecta*—Fowlwort) brought over by the French expedition to Mexico. A specimen planted by the discoverer in Versailles, in 1867, flowered and fruited and lost none of its styptic properties. It might be easily cultivated, and is cheaper than perchloride of iron.

147. *Hudson on Eucalyptus Rostrata as a Remedy for Diarrhoea.*—Mr. Hudson, in the *Lancet*, Dec. 1882, p. 1029, writes reminding the profession of the success which this drug has afforded in the treatment of diarrhoea. In acute cases half an ounce of the strong decoction should be given every two hours, or oftener at first, until some effect is apparent, the frequency of the dose to be diminished gradually as the diarrhoea lessens. It adheres firmly to mucous surfaces, diminishing their secretion, and coagulating the albumen: it also contracts the vessels of the gut, and gives the latter tone.

148. *Death during Administration of Dichloride of Ethylene.*—In the *Brit. Med. Jour.*, Dec. 1882, p. 1267, an account is given of a patient having been admitted into the Liverpool Eye and Ear Infirmary, suffering from a wound of the right eye. On examination, a piece of metal was detected buried in the lens. The patient was put under dichloride of ethylene; in about ten minutes he became anaesthetised and the corneal section was made; almost immediately the pulse became very feeble, and every effort made to restore the patient was fruitless. At the *post mortem* examination no valvular disease of the heart was detected, but there was marked fatty degeneration of its muscular tissue. There were marked signs also of fatty degeneration of the larger vessels, and in the thoracic aorta in one place there was an appearance as of a healed atheromatous ulcer, a condition not expected in the patient, as he was only 26 years of age.

149. *Collier on Croton-Chloral as a Sedative.*—Dr. Collier, in the *Brit. Med. Jour.*, Dec. 1882, p. 1238, draws attention to the good effects of croton-chloral in producing refreshing sleep. It acts often in cases of insomnia in a wonderful manner after every other drug has been tried; it ought to be given in 5-grain doses every half hour until sleep is produced. Liebreich considers the drug preferable to chloralhydrate, since it does not interfere with the circulation or respiration. [A reference to the *Med. Digest*, Sect. 443:3, gives Dr. Riddell the credit of suggesting the use of croton-chloral in cases of insomnia combined with weak heart, in the *Brit. Med. Jour.*, May 1879, p. 667.—*Rep.*]

150. *Couldrey on Salicylate of Soda in Scarlatina.* Dr. James Couldrey, in the *Lancet*, Dec. 1882, p. 1064, writes to say what great benefit seven cases of scarlatina have received by the prompt administration of salicylate of soda; the dose given was fifteen grains every two hours until the singing in the ears was produced, and then every four hours until the end of the first week. For children the dose was one grain of the salicylate for every year of age of the patient. [A reference to Section 81:6 of the

Med. Digest, will show that the value of salicylic acid and salicylate of soda have long been advocated by more than one observer.—*Rep.*]

151. *Harries on Boracic Acid in Diphtheria.*—Mr. Harries, in the *Lancet*, Dec. 1882, p. 1004, refers Dr. Goodhart to a communication in the *Lancet* of Feb. 15, 1882, in which Mr. Harries advocates the use of boracic acid in diphtheria as a specific in the early stages of the disease, and gives some statistics showing the results of ten years' experience. Dr. Goodhart speaks of the 'loosening,' dissolving and preventing the reformation of the membrane by this treatment, but Mr. Harries does not agree with him in saying that the membrane is dissolved by the boracic acid. [Dr. Atkinson in 1880 strongly advocated the use of boracic acid both internally and locally in cases of diphtheria. *Vide Med. Digest*, Section 822:5; LONDON MEDICAL RECORD, 1880, p. 231.—*Rep.*]

152. *Wortabet on Oil of Turpentine in Egyptian Endemic Hamaturia.*—Dr. Wortabet, in the *Lancet*, Dec. 1882, p. 979, gives an account of a case in which he cured a patient aged 20, of hamaturia. The urine when first examined contained blood, and also ova and free embryos of the *Bilharzia* in large quantities. At first the patient was treated with large doses of quinine without any change in the symptoms. Then oil of turpentine was given in doses of one drachm three times a day; this was continued daily for about three weeks, during which time it was observed that the ova became broken, and no living embryos were seen, until, at the end of the three weeks, all symptoms had disappeared and the urine was healthy. This is the only instance recorded of any drug having perfectly cured this kind of hamaturia, so common in Egypt.

153. *Read on Gelselenium Sempervirens in Tetanus.*—Dr. John Read, of Alabama, in the *Brit. Med. Jour.*, Dec. 1882, p. 1245, reports a case of tetanus cured by gelselenium sempervirens. The case was that of a strong mulatto woman, who was suffering from well-marked tetanic convulsions, caused by a broken bit of glass in her foot. Chloroform was given, but the glass was not extracted as it was almost impossible to keep the patient quiet. As the tetanus did not seem to be influenced by morphia, Dr. Read ordered twenty minims of fluid extract of gelselenium every two hours, alternating with the same quantity of liquor potassæ at the same intervals. On the second day the dose was increased to forty minims every two hours, and on the third day there was a marked improvement in the tonic and clonic spasms. After the fourth day the rigidity of the jaws was almost entirely relieved, and the dose reduced to twenty minims every two hours, convalescence being rapid. No other symptom besides controlling the spasms was produced by the gelselenium.

154. *Wilson on the Curative Effect of Chloral in Albuminuria.*—Mr. T. Wilson, in the *Brit. Med. Jour.*, Dec. 1882, p. 1247, gives two cases in which he has treated albuminuria with chloral. One was that of a woman, age 40, who was suffering from a dilated heart, passive congestion of the kidneys, and severe dropsy. It was noticed that after taking a dose of chloral one evening, the urine was lighter in colour and contained less albumen. After this frequent doses were given and gradually the oedema disappeared. The chloral was then withdrawn and the symptoms returned, but were removed by again administering chloral. Mr.

Wilson tried the drug again in a patient aged 68, suffering from albuminuria, with the same results.

RICHARD NEALE, M.D.

155. *Saveljeff on the Therapeutic Use of Clay.*—Dr. M. V. Saveljeff, of Vladimir, confirms (*Wratch*, 1882, No. 16) the results published by Drs. D. T. Sokoloff (*London Med. Record*, April 1882, p. 144) and A. Maslinitoff (*Ibid.*, Nov., p. 452). Having followed the advice of Professor Botkin, he has since 1878 employed clay-cakes in about 100 cases of cardiac organic diseases, cardiac neuroses, and palpitations, of every kind, and invariably met with most remarkable success. He takes common red clay (instead of Sokoloff's sculptor's clay, or Maslinitoff's plaster of Paris), moistens it with water until a thick paste is formed, makes a cake of a palm's size and of a finger's thickness, and then applies it to the cardiac region. Pain disappears within eight to ten minutes, palpitation within ten to fifteen. A cake dries in febrile patients in two to three hours, otherwise in five, and then is to be changed. Clay-cakes are beneficial not only in cardiac cases. The author himself has suffered from paroxysmal neuralgia in the region of the left kidney, the attacks being very severe, and lasting from six to eight hours, in spite of the use of narcotics. Of late, he began to apply clay-cakes to the painful region every time when a paroxysm was coming. Since then, the paroxysms have had a duration of only half an hour or so, and appear far more rarely. In conclusion the author states that the Vladimir peasants from time immemorial have employed red clay-cakes (all over the body) as a cooling remedy in febrile cases of every description.

156. *Schnaubert on Milk-Diet in Graves' Disease.* Dr. Schnaubert, in Botkin's *Ejenedeln. Klin. Gaz.*, 1882, No. 13, speaks very favourably of the value of exclusive milk-diet in cases of exophthalmic goitre. In one of his patients, three weeks' treatment by milk restored digestion and general health, and so greatly improved all symptoms, that some weeks later the patient left the hospital relatively sound and remained so nearly two years. At this time, she returned with highly developed signs of the disease, and though the milk treatment again greatly relieved the patient's condition, she soon died. The necropsy showed hyperplasia in the cervical sympathetic ganglia, pigmentation of roots of the cervical nerves, and cerebro-spinal hyperæmia. [The milk-treatment proved as beneficial in two cases of Graves' disease, reported lately by Dr. Catharina Shumova in Botkin's *Ejenedeln. Klin. Gaz.*, 1882, Nos. 1-5.—*Rep.*]

157. *Kaczynski on Petroleum in Small-pox.*—Dr. Kaczynski (*Przegląd Lekarski*, 1882, No. 13) painted the skin of variolous patients with a mixture of petroleum and olive-oil (1 : 3 or 4) and obtained good results even in the confluent variety. The crusts rapidly fell off, leaving the skin smooth and pale.

V. IDELSON, M.D.

158. *Banatvala on the Use of the Syzygium Jambolanum in Diabetes.*—Mr. H. E. Banatvala, in the *Midland Medical Miscellany*, draws attention to the therapeutic value of the fruit-stones of the Syzygium Jambolanum, belonging to the natural order *Myrtaceæ*. Shortly before he left India, he was watching some chronic cases of diabetes where the daily excretion of urine and sugar was considerable. They had all yielded in the beginning of the illness to opium, codeia, ergot, or the sulphide of calcium; but

the recovery was in each case only temporary. Dietetic treatment alone had any hold upon the disease. One patient passed on an average about ten pints of urine daily, of specific gravity 1032, containing nearly one-half sugar. His appetite was failing, and he complained of great thirst and dryness of the mouth and throat. The skin was dry, and the bowels as a rule constipated, excepting when any irregularity of diet occurred (which was often the case). This showed itself the next day by a more copious passage of urine, and a smart attack of diarrhoea soon afterwards. Some Hakeem (a quack) had prescribed for him five-grain doses of the above-mentioned fruit-stones dried and powdered, to be taken three times a day; and he noticed that he passed less urine, and that his rest was unbroken. On examination of the urine, Mr. Banatvala found the specific gravity 1020, and no sugar: the quantity had come down to the normal, and some of the urgent symptoms had disappeared. The patient did not restrict himself in his diet. Mr. Banatvala therefore tried the drug in three other cases with the following results. 1. It had a decided influence upon the daily secretion of urine by lessening its quantity. 2. The quantity of sugar disappeared in every case while the patients were taking the drug. 3. The preliminary change was produced on an average in about forty-eight hours. The prominent symptoms have disappeared, and the patients have secured an immunity from the usual consequences of a starchy diet in such cases so long as they are under the influence of the drug. With regard to the properties of the tree, the leaves, stem, and fruit are all astringent. The fruit is of a bluish-black colour externally, pulpy within, of a sweetish astringent taste, and is eaten largely by the natives. The fruit-stones used belonged to a variety that grows on the hills in Western India, which is characterised by bearing fruit much smaller than the ordinary Jambou sold in Bombay.

159. *Duval on Turpeth Mineral in Croup.*—Dr. Fordyce Barker, of New York, places great reliance on this drug in croup. Dr. E. R. Duval stated at a meeting of the Medical Society of the State of Arkansas (*Transactions*, and *Philad. Med. and Surg. Reporter*) that for twelve years, after the manner of Dr. Barker, he had been using the turpeth mineral in the treatment of this disease, and he had since the adoption of this plan lost no case. His treatment has been, immediately upon being called to a case, to administer at once a dose of the agent (from 2 to 5 grains, according to age) in honey, syrup, or sugar of milk, and if there be no decided emesis within fifteen minutes, to repeat the dose; and he has never known it to fail to vomit at the second dose; almost immediately a satisfactory response is secured by the first administration. The vomiting is usually free, without effort and without depression. The powder is tasteless, small in bulk, prompt in action, and thorough in effect. The action is said to be sedative and revulsive. It depletes the mucous membrane by an abundant secretion of mucus, which is thrown up; it removes from the larynx, by the forced expiration which it causes, any albuminous or fibrous exudation which may become subsequently pseudo-membrane; it acts as a powerful revulsive, and thus diminishes the capillary circulation in the trachea and larynx; and thus it becomes a most effective agent in arresting the inflammatory forces. If the croup persist after removing the causes of reflex action, then, of

course, other therapeutic agents will need to be essayed; but throughout the attack, be it short or long, when the breathing becomes suffocative, from the accumulation of mucus in trachea or larynx, he gives the turpeth mineral in the manner and according to the conditions and plans above designated.

160. *Eulenburg on Subcutaneous Injection of Various Salts of Silver.*—Dr. Eulenburg presented a paper at the German Medical Congress, held in Wiesbaden (*Transactions*, 1882), in which he related some experiments undertaken by him to determine the utility of the hypodermic injection of silver. The uncertain results following the administration of nitrate of silver by the mouth, he thought, were due partly to a reduction of the salt in the process of compounding, and partly to chemical changes which it undergoes in the stomach. The first experiments were made with chloride of silver. Immediately after the injection no discomfort is experienced, but later some inconsiderable pain is felt for several hours. This is probably due to the deposition of metallic silver in the tissues. Some injections of the phosphate were made in rabbits without exciting any local irritation. As this salt is soluble only in a strongly acidulated menstruum, trials were made of the pyrophosphate, which requires much less acid for its solution. No irritation followed the injections. Finally, an albuminate was used with the same negative result. Previous trials of the nitrate had demonstrated that no evil effects followed its injection other than some pain, and, very rarely, slight inflammation. The author stated that a part of the injected salt is precipitated at the point of insertion, and a part passes in a soluble form into the blood and is excreted by the kidneys. From the experiments thus far made, Eulenburg concluded that solutions of the silver salts in suitable form might be administered subcutaneously with advantage, and that the results obtained are much more certain than when the metal is given by the mouth. As regards the particular salt most suitable for hypodermic use, the author was as yet undecided.

161. *Carter on Cascara as a Laxative.*—Dr. Carter, of Liverpool, in an article on new therapeutic agents, writes to the following effect concerning cascara (*rhamnus purshiana*). The fluid extract prepared from the bark of this shrub, or small tree, is an excellent remedy in chronic constipation. I have used it now for two years, and have no doubt of its value. The fluid extract is reddish brown in colour, and extremely bitter. A very good method of prescribing it is in a mixture, with twice its quantity of glycerine, or one of the flavoured syrups. Of this a fluid drachm should be given three times a day, and the dose be diminished as soon as its aperient action is developed. It is what may be termed a tonic aperient, and seems to produce an effect somewhat like that caused by belladonna and nux vomica united with an ordinary aperient. It evacuates the whole canal. The motion is not watery, but usually semi-solid, truly feculent in character, and voided without difficulty, and, so far from its causing subsequent constipation, the bowels will often act regularly after its use has been entirely discontinued. I have used it so extensively, and the testimony to its value is so unmistakable, that it would be difficult to select particular cases to prove this.

MEDICINE.

RECENT PAPERS.

162. DE RENZI.—Electricity and Intermittent Fevers. *Annali Univ. di Med.*
163. MASSEI.—Laryngeal Aphthæ. (*Assoc. Med. Ital.*)
164. BORGHERINI.—Contributions to the Cure of Echinococcus Cysts by Capillary Puncture. (*Gazz. Med. Ital. Prov. Venete*, Aug. 12, 1882.)
165. BIANCHI.—Observations on Gastric Irrigation. (*Lo Sperimentale*, June 1882.)
166. TANSINI.—Capillary Puncture of the Stomach for the Injection of Liquids. (*Gazz. degli Ospitali*, Aug. 16, 1882.)
167. DOZZI.—Intestinal Obstruction Cured by Capillary Entero-puncture. (*Gazz. Med. Ital. Prov. Venete*, Sept. 23, 1882.)
168. HAMILTON.—On Myxedema. (*New York Med. Record*, Dec. 9, 1882.)
169. The Diagnosis of Floating Kidney. (*Revue Méd.*, No. 1, 1882.)
170. KERSCHENSTEINER.—Epidemic Pneumonia. (*Allg. Med. Central-Zeit.*, June 17, 1882.)
171. ELOV.—Orchitis in Enteric Fever. (*L'Union Méd.*, Nov. 18, 1882.)
172. BROADBENT.—Abnormal Rhythm of the Heart-Sounds. (*Practitioner*, Jan. 1883.)
173. CHARCOT.—Hysteria in Boys. (*Le Progrès Méd.*, No. 51, 1882.)
174. TAYLOR.—Body-Temperature in Different Situations. *New York Med. Record*, Nov. 18, 1882.)
175. GUÉRIN. The Prodromal Stage of Typhoid Fever. (*Bull. de l'Acad. de Méd.*, Jan. 9.)
176. POLLOCK.—Ulcerative Endocarditis with Pyæmic Symptoms. (*Ibid.*, Dec. 1882, p. 976.)
177. WINGRAVE.—Sudden Death after Diphtheria. (*Ibid.*, Oct. 1882, p. 724.)
178. MILLICAN.—The Microscope in Diarrhoea. (*Ibid.*, Oct. 1882, p. 657.)
179. JOHNSTON.—Phthisis; its Etiology and Treatment. (*Ibid.*, Dec. 1882, p. 1003.)
180. ATKINSON.—Nourishment in Delirium Tremens. (*Practitioner*, Jan. 1883, p. 38.)
181. ATKINSON.—The Causation of High Temperature in Typhoid Fever, and its Reduction. (*Brit. Med. Jour.*, Dec. 1882, p. 1205.)
182. GRANVILLE.—Diphtheria and Typhoid Fever. (*Lancet*, Dec. 1882, p. 1065.)
183. BROWN.—Primary Endocarditis. (*Brit. Med. Jour.*, Dec. 1882, p. 1206.)
184. PATERSON.—Frequent Tapping in Ascites. (*Lancet*, Dec. 1882, p. 1065.)
185. SOUTHEY.—Acute Rheumatism complicated with Pericarditis and Pleuro-pneumonia. (*Ibid.*, Dec. 1882, p. 983.)
186. HAMILTON AND OTHERS.—Orchitis in Typhoid Fever. (*Ibid.*, Dec. 1882, pp. 994, 1039, 1065.)
187. WILSON.—The Temperature and Pulse in Intermittent Fever. (*Lancet*, Oct. 1882, p. 612.)
188. SQUIRE and others.—The Incubation Period of Scarlet Fever. (*Brit. Med. Jour.*, Nov. 1882, p. 996, and Dec. 1882, p. 1091.)
189. MAIN.—The Period of Infectiveness in Scarlet Fever. (*Ibid.*, Dec. 1882.)
190. TCHIRKOFF, V.—On Displacements of the Heart and Syncope in Cases of Pleuritic Effusion. (*Moscow Inaug. Dissertation*, 1882, p. 66.)
191. CHOMIAKOFF, M. A., and KOTOVSHCHIKOFF, N. T.—A Contribution to the Study of Origin of Respiratory Murmurs. (*Dnevnik Kazan. Obst. Vrachei*, Nos. 13 and 14, 1881.)
192. VELIJANIN.—On the Diagnosis of Aneurisms of the Ascending Aorta. (*Ejnedeln. Klin. Gaz.*, 1881, No. 31.)
193. SIMANOVSKY.—On a Case of Congenital Heart-Disease. (*Ibid.*, 1881, No. 23.)

194. ADAM.—Drainage in Anasarca. (*Australian Med. Gaz.*, Aug. 1882.)
195. ROSENBACH.—The Diagnosis of Spurious Heart-Murmurs. (*Trans. of German Med. Congress*, 1882.)
196. RÜHLE.—The Uremic Seizure. (*Trans. of German Med. Congress*, 1882.)
197. SIMONEAU.—Fatal Tetanus complicating Typhoid Fever. (*Jour. de Méd. et de Chir.*, August 1882.)
198. LEROUX.—Hereditary and Congenital Malaria. (*Rev. de Méd.*, No. 7, 1882.)

ART. 162. *De Renzi on Electricity and Intermittent Fevers.*—The treatment of intermittent fever by electricity in the Medical Clinic of Genoa, directed by Professor de Renzi, has given very good results (*Annali Univ. di Med.*). Electricity was first tried in the treatment of intermittents by Frank and Borsieri, afterwards by Aldini, Cavallo, and Puccinotti, and lately, after having been neglected for a long time, by Bossi of Rome, Sini of Leghorn, and by Shipulski, Deparquet, &c. In De Renzi's hands it gave immediate and decisive results. He says that in the majority of cases intermittent fever can be cut short more promptly than by quinine. In nine cases he had five complete cures, one marked improvement, one slight, and two unsuccessful cases. He uses the constant and the faradic currents; the constant applied for five to fifteen minutes in ascending direction along the spinal column, the rheophores being placed over the two extremities of the medulla; the faradic of medium intensity for half an hour, the patient holding a rheophore in each hand. The faradic was more efficacious than the constant current. The new studies of De Renzi have confirmed the possibility of overcoming intermittent fever by this method, but do not solve the following questions. Why is a rapid and complete cure sometimes obtained, while sometimes it is incomplete? What is the best method of applying electricity? When ought it to be preferred to the preparations of cinchona?

163. *Massei on Laryngeal Aphthæ.*—Professor Massei gives (*Congresso Gen. dell' Assoc. Med. Ital.*) the history of two cases of laryngeal aphthæ (*mitiguet*). The first was a lady who had had measles, jaundice, and urticaria; her convalescence was prolonged and retarded by a laryngeal *mitiguet*. With the laryngoscope was seen a stratified exudation in the larynx, similar to the exudation of croup. It was cured by inhalations of the spray of lime-water and borax. The second case was that of a boy, who presented the symptoms of stenosis of the larynx. He was cyanotic, with cold extremities. When the tongue was depressed, the epiglottis was distinctly seen to be involved in a white exudation. The laryngeal catheter was introduced, and in the matter withdrawn on the catheter were found under the microscope spores of *oidium albicans*. Laryngeal aphthæ are secondary to aphthæ of the pharynx and mouth. The symptoms depend on the seat and quantity of the exudation; if it be abundant and in the cavity of the larynx, there are signs of stenosis of the larynx; if, instead, it be situated on the periphery of the organ, there is dysphagia. The laryngeal catheter may be used for diagnosis. It must not be used in croup, as it may detach false membranes and give rise to fatal stenosis. In chronic stenosis it may be used safely.

164. *Borgherini on the Radical Cure of Echinococcus-Cysts by Capillary Puncture.*—Dr. Borgherini reports (*Gaz. Med. Ital. Prov. Venete*, Aug. 12, 1882) five cases treated by puncture with the needle of

the hypodermic syringe and the extraction of 2 to 3 grammes of fluid. Three were cured; the fourth left the hospital with the cyst rapidly disappearing; the fifth required two punctures, the second time with complete extraction of the contained fluid. In all the cases the puncture did no harm, but was always followed by slight fever. In the first case the fever was prolonged for ten days, threatening suppuration. The first indication of improvement in the condition of the cyst is seen after eight, ten, or twelve days.

165. *Bianchi on Gastric Irrigation.*—This operation is becoming every day more recognised as useful in suitable cases. Bianchi relates four cases (*Lo Sperimentale*, June 1882). 1. Chronic gastritis, simulating cancer, pains in the right side, great emaciation, vomiting of food and blood, followed by relief. Many remedies were tried with no good effect until irrigation of the stomach with water at 12° or 14° C. (53·5° or 58° F.), was resorted to. The patient felt better the same day. The irrigation was repeated every morning, at first with plain water, afterwards with water containing 8 grammes of bicarbonate of soda to the litre. The patient was discharged cured in a month, having gained 5 kilogrammes in weight. 2. Chronic catarrh (drunkard's), with probable pyloric stenosis of inflammatory origin. There were pyrosis and vomiting of food, preceded by pain in the epigastrium; cure, in a month. 3. Gastric catarrh, with marked dilatation of the stomach. Great improvement followed in three days, when the patient left. 4. Carcinoma of stomach, fixed pain in the pyloric region, vomiting of blood, even more than three litres in twenty-four hours. The patient experienced much relief from the irrigations, and was able to take liquid nourishment and gained strength for a time, but died after a month, worn out by the cachexia and debility.

166. *Tansini on Capillary Puncture of the Stomach for the Injection of Liquids.*—Dr. Iginio Tansini, of Lodi (*Gazz. degli Ospitali*, Aug. 16) proposes this operation as likely to be often of great service, especially where passing the œsophageal tube is impossible or unadvisable, and where antidotes have to be promptly introduced into the stomach. Gastrotomy is always a serious operation, while puncture by a capillary trocar he has proved by experiments on animals to be harmless. From his studies on the dead body he believes that it is practicable, even with the stomach empty and retracted. Labbé says that the anterior surface of the empty stomach is directly accessible in a triangular space, whose base is below and corresponds to the great curvature (or to the transverse line which joins the cartilages of the ninth ribs), and whose margins are—to the right, the left lobe of the liver; and to the left, the margin of the false ribs. Tansini introduces the trocar about 6½ centimètres from the xiphoid apophysis on the left, near the costal margin, the trocar being directed slightly towards the diaphragm. For greater security, when the stomach is pushed against the diaphragm, he introduced the trocar in the eighth left intercostal space, close to the sternum. He owns that the introduction of a trocar through the abdominal and intercostal parietes into an empty stomach is uncertain: the risk is run of either not penetrating the stomach at all, or of penetrating too deeply. He therefore recommends an incision to be made 3 centimètres along the left costal margin, the centre of the incision to be about 6½ centimètres from the xiphoid apophysis. Thus the anterior sur-

face of the stomach may be exposed and seen to be uncovered by the left lobe of the liver and colon, and if this last be in the way it may be pushed down, and the trocar then introduced.

167. *Dazzi on Intestinal Obstruction cured by Capillary Entero-puncture.*—Dr. Giulio Dazzi (*Gazz. Med. Ital. Prov. Venete*, Sept. 23, 1882) relates the case of an old woman aged seventy who, after eating a large quantity of water-melon and swallowing the seeds, suffered from obstruction of the bowels. Purgatives and injections had been tried with no relief. The meteorism was enormous. He determined to try entero-puncture, using trocar No. 2 of Dieulafoy's aspirator. Four punctures were made, two in the right iliac region, the third in the left upper fourth, and the fourth in the left lower fourth. From three punctures issued an immense quantity of gas; from the fourth no gas, the trocar being plugged with faecal matter. A dose of oil given the same evening procured four copious evacuations, and the patient made a good recovery. One of the punctures gave rise to a small abscess. In this case peristaltic action was evidently prevented by the enormous quantity of gas, arising from the decomposition of the retained feces.

G. D'ARCY ADAMS, M.D.

168. *Hamilton on Myxædema.*—Dr. Allan McLane Hamilton (*New York Med. Record*, Dec. 9, 1882) writes an excellent paper on myxædema, based upon a case recently reported by Dr. Holland of Louisville. He found nitro-glycerine do good in the treatment. He thinks renal disease to be the result, not the cause, and thinks it probably due to a primary lesion of the medulla oblongata, 'with secondary extension to the postero-lateral columns of the spinal cord and the spinal sympathetic ganglia.' He appends the following bibliography, which may be usefully reproduced:—Rösch, *Untersuchungen über den Kretinismus in Württemberg*, Erlangen, 1844, pp. 179, 183; Curling, *Med.-Chir. Trans.*, Vol. xxiii, p. 303; Fagge, *Med.-Chir. Trans.*, Vol. liv, p. 159; Gull, *Trans. of Clin. Soc.*, Vol. vii, 1873; Ord, *Med.-Chir. Trans.*, Vol. lxi, and *Brit. Med. Jour.*, May 1878; Olier, *Arch. Gén. de Méd.*, June 1879; Savage, *Jour. of Mental Science*, January 1880; Thaon, *Revue Mens. de Méd. et de Chir.*, August 1880; Goodhart, *Med. Times and Gazette*, May 1, 1880; Hadden, *Le Progrès Méd.*, 1880, Nos. 30 and 31; Inglis, *Lancet*, Sept. 25, 1880, p. 605; Ballet, *Le Progrès Méd.*, 1880, No. 30; Bourneville and Olier, *Le Progrès Méd.*, 1880, No. 35; Lloyd, *Brit. Med. Jour.*, Jan. 22, 1881; Hopkins, *Lancet*, Dec. 10, 1881; Mahomed, *Lancet*, Dec. 24, 1881; Charcot, *Gaz. des Hôpitaux*, No. 10, 1881; Hammond, *Neurological Contributions*, 1881; Mercer, *New York Med. Record*, April 16, 1881; Ridet-Saillard, *Thèse*, No. 218, 1881; Cavayé, *Brit. Med. Jour.*, Dec. 24, 1881; Morvan, *Gaz. Hebdom. de Méd.*, Aug. 26, and Sept. 6, 9, and 16, 1881; Fiesinger, *Revue Méd. de l'Est*, 1881, p. 301; Lunn, *Brit. Med. Jour.*, Dec. 24, 1881; Heron, *Med. Times and Gazette*, Jan. 1882; Henrot, *Proceedings of French Society for Advancement of Science*, *Trans. in New York Med. Record*, Oct. 14, 1882; Charpentier, *Le Progrès Méd.*, Feb. 4, 1882; Seppilli, *Rivista Speriment. di Frontal. e di Med. Leg.*, 1 and 2, 1882; Semon, *Trans. Clin. Soc.*, 1881; Blaise, *Archiv. de Neurolog.*, 1882, Nos. 7 and 8; Hadden, *Brain*, July 1812; Holland, *American Practitioner*, Sept. 1882; Cushier, *New York Med. Record*, Aug. 19, 1882, and *Archives of Medicine*, Dec. 1882.

169. *The Diagnosis of Floating Kidney.*—An anonymous writer (*Revue Méd.* No. 1, 1883) points out that displacements of the kidney were studied first by Mesné and Riolan, and have been discussed by Rayer, Fritz, Lancereaux, and Lecorché, while they have formed the subjects of clinical lectures by Trousseau and N. Guéneau de Mussy. These cases have almost always occurred in women in middle life, after a fall, a walk, or without apparent cause. The physical signs are those of a globular tumour, of the size of a fist, which changes its place and can often be pushed into the position of the kidney, when all the disagreeable subjective symptoms cease. When it is compressed, the patient feels a peculiar nauseating sensation. The lumbar region may show a concavity, and be less dull on percussion. The tumour swells at each monthly period, and causes much pain. He gives details of two cases, in which no opportunity occurred of confirming the diagnosis. In another a young phthisical lady, after a violent shaking, was taken with great pain in the abdomen, radiating down the legs. To the right of the umbilicus there was a hard, nodular, movable, painful tumour, which was thought to be a floating kidney, the urine having greatly diminished since the accident. At the necropsy, the right kidney was found in its place, and in front of it an irregular, yellowish tumour, of the size of an orange, consisting of the gall-bladder full of calculi. The gall-ducts were six or seven inches long, which explained and permitted the displacement.

170. *Kerschensteiner on Epidemic Pneumonia.*—Kerschensteiner (*Allg. Med. Central-Zeit.*, June 17, 1882) relates an epidemic which broke out in the House of Detention at Amberg in the winter of 1879-80, attacking 14 per cent. of the prisoners, with forty-six deaths. The patients discharged at the time did not carry any infection with them, so that the poison was apparently not transportable. He also reports another epidemic at Urter, which began amongst people who had worked for some hours in a room containing cages of foreign birds, which had come from Berlin, Hamburg, and Vienna, where typhoid was then very prevalent. The disease was decidedly infectious; the incubation appeared to be from nine to fourteen days. The symptoms of onset were those of typhoid fever. Pneumonia appeared about the end of the first week; the spleen became enlarged, with roseola and sometimes petechiæ. In four cases there was angina, in one case commencing with false membranes; in four cases epistaxis; in four cardiac dilatation; in four albuminuria; the kidneys showed slight alteration of their cortices. The mortality was great—three out of seven.

171. *Eloy on Orchitis in Enteric Fever.*—M. Eloy (*L'Union Méd.*, Nov. 18, 1882) draws attention to the orchitis which occasionally supervenes in the course of enteric fever. Numerous observations have been recorded by Bouchut, Duffey, Hanot, Sabourin, Huchard, Vidal, Chedevergne, Cerveille, Vallin, Ellis, &c.; and in 1878 a discussion upon it took place at the Société Clinique. Its appearance is often sudden, attended by a rise of temperature. It may occur during the fever, or in the course of convalescence. The pain is not so great usually as in urethritis. One testicle only is affected; the epididymis is almost always unaffected. In seven out of nine cases the attack was in the right testicle. In eight out of twelve cases the attack was benign, terminating in eight or ten days by resolution; it

may be fugitive. In four out of thirteen cases there was suppuration. Persistent induration of the epididymis and even atrophy of the organ sometimes resulted.

172. *Broadbent on Abnormal Rhythm of the Heart-Sounds.*—Dr. Broadbent (*Practitioner*, Jan. 1883) draws attention to the variations in the length of the interval between the first and second sounds of the heart, and their significance. He thinks the interval is increased when the arterial resistance is great and the compensatory hypertrophy failing, the sound then becoming equidistant like the *tic-tac* of a watch. It is also heard in fatty heart and great pericardial effusion. On the other hand, the interval is shortened from diminished peripheral resistance, or when the ventricle fails to complete its contraction, and in this condition the danger of fatal syncope is extreme.

173. *Charcot on Hysteria in Boys.*—Charcot (*Le Progrès Méd.*, No. 51, 1882) thinks hysteria relatively common in boys about the age of twelve or thirteen. Such cases present more or less of the characteristic phenomena met with in women—hemi-analgesia, hysterogenic points, amblyopia, and epileptiform attacks with marked opisthotonos. In such cases the prognosis is usually good, and the attacks are usually less obstinate than in girls. In the treatment, isolation from the influence of too solicitous parents is essential. He relates the case of a Jewish lad, who only recovered after isolation was obtained. In addition, he recommends the douche every other day, and tonics.

174. *Taylor on Body-Temperature in Different Situations.*—Dr. Henry L. Taylor (*New York Med. Record*, Nov. 18, 1882) has found that the difference between the axillary and rectal or vaginal temperature in typhoid fever, while usually about a degree higher in the latter situation, may vary as much as 2° F. sometimes in favour of the axilla, sometimes of the rectum or vagina.

ROBERT SAUNDEY, M.D.

175. *Guérin on the Prodromal Stage of Typhoid Fever.*—At the meeting of the Académie de Médecine on January 9 (*Bull. de l'Acad. de Méd.*), M. Jules Guérin contributed to the discussion on the recent epidemic of typhoid in Paris a note on the abortive forms and the prodromal stage of the fever. M. Guérin is satisfied that a true prodromal stage exists, and that its symptoms may be readily distinguished from those of the invasion period. The action of the fever-poison may be compared to the action of such a poison *e.g.* as arsenic. When a dose of arsenic is taken it produces first, by virtue of its presence in the stomach, a certain local action, but presently, if it be not expelled or neutralised, it becomes absorbed and gives rise to a general action. So the poison of typhoid fever, when it enters the body, produces a primary local action, and then, becoming absorbed, gives rise to the characteristic train of general symptoms. The poison may be introduced primarily into the lungs through the respiratory passages, into the nervous system by absorption through the skin, or directly into the intestinal tract; and before it becomes absorbed into the general system it produces in these organs a certain local action, giving rise to symptoms which are truly prodromal. The prodromal symptoms thus indicate the local action of the fever-poison before it becomes absorbed. During this stage therefore, if the poison be evacuated or neutralised, absorption will be prevented and the fever cut short. Acting on this theory,

M. Guérin has been able to treat typhoid fever so successfully that during the many years he has put it in practice he has not had a single fatal case. 'I employ,' he says, 'evacuants on the first suspicion of the disease, purgatives for the abdominal form, and emetics, especially ipecacuanha, for the thoracic form,' and immediately thereafter evacuants and disinfectants (preferably carbon) alternately. By using these measures, he declares he has been generally able to prevent the absorption of the poison and the development of the fever. [M. Guérin's theory is very pretty and very logical; but when he claims success in preventing the development of the fever, we cannot avoid questioning the accuracy of his diagnosis.—*Ref.*]

D. MANSON FRASER, M.D.

176. *Pollock on Ulcerative Endocarditis with Pyæmic Symptoms.*—Dr. Julius Pollock, in the *Lancet*, Dec. 1882, p. 976, in referring to the attention lately drawn by Dr. Coupland, Dr. Wilks, and others, to a rare and interesting form of ulcerative endocarditis with pyæmic symptoms, gives the notes of a case in which the symptoms of pyæmia came on during the course of a first attack of rheumatic fever, the heart being quite sound; and not in a case where there was previously old cardiac mischief. The patient, a woman, aged 22, was admitted into Charing Cross Hospital with marked symptoms of rheumatic fever, but no abnormal heart sounds were detected. About four weeks from onset of attack patient was suddenly seized with a rigor, and the temperature rose rapidly from 98° to 102.4° F. In a few days, a distinct murmur was heard with the first sound at the apex; this gradually became very distinct, and the patient died about seven weeks from the beginning of the attack, having had repeated rigors, and at the latter part of the time symptoms of consolidation of the lungs. At the *post mortem* examination the left pleura was found full of fluid, and the left lung consolidated with signs of recent infarctions. The right lung was the seat of four or five indurated patches, the result of pyæmia pneumonia. On the right border of the mitral valve there was recent ulceration going on, and around it some exuberant vegetations, soft and easily detached. No atheroma or other valvular mischief was present. Dr. Pollock remarks on the rarity of ulcerative endocarditis with pyæmic symptoms, and thinks that the treatment is very unsatisfactory. He suggests, in cases of pyæmic abscesses in the lungs, the trial of inhalation of carbolic acid.

177. *Wingrave on Sudden Death after Diphtheria.* Mr. Wingrave, in the *Lancet*, Oct. 1882, p. 724, suggests that there may be other causes of sudden death after diphtheria than the action of the diphtheritic virus upon the nerve-centres. At the Middlesex Hospital, attention has lately been drawn to certain changes in the muscular tissue of the heart in a case of diphtheria. When examined microscopically, the muscle-fibres were seen to be undergoing fatty changes; the neighbourhood of the blood-vessels, interstitial connective tissue, and spaces were infiltrated with abundant proliferation of nucleated and granular cells. Scattered here and there were also seen a few granular yellow bodies, but forming no distinct nuclei. This condition was seen in several large areas all over the heart. A second case also presented similar appearances.

178. *Millican on the Microscope in Diarrhæa.*—Mr. Millican, in the *Lancet*, Oct. 1882, p. 637, gives an account of an outbreak of diarrhæa, in which the use of the microscope aided in the treatment of the

disease. A number of cases of severe diarrhoea occurred in a district in Warwickshire, and for some time no good resulted from the administration of astringents, until Mr. Millican examined the stools microscopically, when he discovered them to be swarming with bacteria. The treatment was altered, and one grain and a half of carbolic acid was given internally every four hours, with great success; and later on he tried giving five minims of terebene in mucilage, also with great success. The method of examination for bacteria is, by obtaining a lump of the gelatinous evacuation, drying it on a glass slide, then floating the slide for five or ten minutes on a solution of aniline blue; then wash in diluted nitric acid (one in three), and finally in distilled water, and, when dry, mount in Canada balsam.

179. *Johnston on Phthisis: its Etiology and Treatment*.—Dr. William Johnston, in the *Lancet*, Dec. 1882, p. 1003, suggests a form of treatment of phthisis, based on the grounds that tuberculosis is a parasitic disease of the internal organs, and that the parasite is a bacillus distinguished by its microphytic and other features. It is suggested that by the absorption of medicinal agents, such as carbolic acid, salicin, &c., one may be able to destroy this germ, either by acting on the skin by means of carbolic acid in intimate union with the vapour of water at a high temperature, or else by giving salicin internally, which is decomposed into several compound acids during its passage through the body.

180. *Atkinson on Nourishment in Delirium Tremens*.—In the *Practitioner*, Jan. 1883, p. 38, Dr. Atkinson calls attention to the necessity of feeding the patient in attacks of delirium tremens, a point which he thinks is not sufficiently borne in mind, notwithstanding the emphasis placed upon this fact by Sir James Paget and many others since 1869 (*vide Medical Digest*, 428: 5). With chloral in sufficient doses to cause sleep, and food pushed in the form of milk and beef-essence, satisfactory results are quickly obtained.

181. *Atkinson on Causation of High Temperature in Typhoid Fever and its Reduction*.—Mr. G. P. Atkinson, in the *Brit. Med. Jour.*, Dec. 1882, p. 1205, draws attention to the fact that in cases of typhoid fever, where the temperature is high and the delirium marked, counter-irritation, in the form of emplastrum lyttæ, applied to the epigastrium, affords great relief to the brain symptoms, and a prompt reduction of the temperature. Mr. Atkinson published some statements in the *Journal* for Oct. 1880 with regard to his experience in applying counter-irritation to the epigastrium.

182. *Granville on Diphtheria and Typhoid Fever*. Dr. Mortimer Granville, in the *Lancet*, Dec. 1882, p. 1055, in referring to the co-existence of diphtheria and typhoid fever, mentions that the late Dr. William Budd, in his investigations on the nature and propagation of diphtheria and its kindred diseases, draws attention to the fact that typhoid fever is generally preceded by an affection of the throat, which, if carefully examined, will be found to be characterised by the presence of minute pellicles of diphtheritic membrane, usually situated on the upper and posterior surfaces of the tonsils and often in the fauces. Dr. Granville also draws attention to some experiments which have been tried with a view of employing one disease as a prophylactic of the other. He believes that in diphtheria there is generally some, though not great, irritation of Peyer's glands; and when this is strongly marked, there ought to be

'spots.' [Much very interesting and valuable information may be gathered relative to the connection of typhoid fever and diphtheria by turning to Section 819: 3, *Medical Digest*.—*Rep.*]

183. *Brown on Primary Endocarditis*.—Mr. J. Brown, in the *Brit. Med. Jour.*, Dec. 1882, p. 1206, draws attention to Dr. Harrison's paper on primary endocarditis, and confirms the conclusion that acute endocarditis is more common in children than is usually supposed. In children acute rheumatism, as a rule, never attacks the joints, but generally the heart, often leaving serious valvular disease. Mr. Brown recommends that, when endocarditis is discovered in a child, one should wrap the chest in flannel, and not examine it too often, as by exposing the chest one runs great risk of further mischief.

184. *Paterson on Frequent Tapping in Ascites*. Mr. Paterson, in the *Lancet*, Dec. 1882, p. 1065, mentions a case of cirrhosis of the liver in a woman, aged 42, in which he tapped the abdomen with a small cannula thirty-nine times in eight months, drawing off altogether 110 gallons of fluid. The treatment, however, was only palliative.

185. *Southey on Acute Rheumatism complicated with Pericarditis and Pleuropneumonia*.—Dr. Southey, in the *Lancet*, Dec. 1882, p. 983, reports three cases of acute rheumatism in which there were well-marked signs of pericarditis and pneumonia. Dr. Southey remarks that he has wondered that the association of pericardial effusion with pneumonia of the lower lobe of the left lung, or with pneumonia of the middle symmetrical portions of both lungs, has so often escaped comment; he has never found this rheumatic pneumonia independently of the pericardial effusion. On the successful manner in which rheumatic fever is treated nowadays, Dr. Southey adds that the reason is because we treat symptoms as they arise, and do not give medicines on purely theoretical grounds. In speaking of salicylate of soda, he says that its real use lies in the good effect it exercises upon the stomach, cleaning the tongue rapidly. Salicin in the later stages, or in a relapse, acts most beneficially on the gastro-intestinal functions.

186. *Orchitis in Typhoid Fever*.—In the *Lancet*, Dec. 1882, p. 994, an article appears noting the rarity of this complication in the older text-books. The orchitis comes on suddenly, does not involve the epididymis, and generally appears at the end of the pyrexial stage or some days after. It is seldom severe, and is never of a neuralgic character; the inflammation is always unilateral, and is more common on the left than on the right side. As a rule, the congestion ends in six to ten days; but sometimes it may go on to suppuration and complete destruction of the organ. Dr. Hamilton (at p. 1039) gives the notes of a case in which an attack of acute pain and swelling of the right testicle came on some days after convalescence commenced. In a short note at p. 1065, Mr. Manly gives his personal experience of an attack of orchitis with (?) phlebitis of both external saphenous veins, which came on during convalescence from a mild attack of typhoid fever.

187. *Wilson on Temperature and Pulse in Intermittent Fever*.—Dr. Wilson (*Lancet*, Oct. 1882, p. 642) draws attention to his experience in cases of remittent fever, during the time he served as surgeon to the Royal Naval Hospital at Malta. He remarks that although the temperature often rose to 104° or 105° F., the pulse remained almost normal in uncon-

plicated cases; but if pneumonia, hepatic or cerebral congestion, or other complications set in, then the pulse rose far above the normal, and the prognosis became more unfavourable.

188. *Squire and others on the Incubation Period of Scarlet Fever.*—Dr. William Squire and Dr. Field (*Brit. Med. Jour.*, Nov. 1882, p. 996) draw attention to cases reported from the Fulham Hospital in the *Journal*, p. 942. Both agree that the cases reported are not instances showing that the incubation period of scarlet fever extends over five days, but rather that, though exposed to infection for many days, the disease was not contracted for several days after the exposure. Mr. Bryden, at p. 1035, gives an account of his experience in about forty cases, and says that in none was the period of incubation over six days (see also p. 1092).

189. *Main on the Period of Infectiveness in Scarlet Fever.*—Dr. John S. Main (*Brit. Med. Jour.*, Dec. 1882, p. 1091) pronounces a patient recovering from scarlet fever to be free from infection—(a) when desquamation has ceased, and a full week allowed to expire besides; (b) when the throat symptoms have abated, and all lesions of the mucous membrane are healed; (c) when the body-clothing and surroundings of the patient have been thoroughly disinfected.

RICHARD NEALE, M.D.

190. *Tchirkoff on Displacement of the Heart and Syncope in Exudative Pleuritis.*—Dr. V. Tchirkoff (*Moscow Inaug. Dissertation*, 1882) has undertaken a series of experiments on dogs in order to elucidate two points: 1, the causes and mechanism of cardiac displacements; and 2, the causes of syncope in patients suffering from exudative pleuritis. He has arrived at the following conclusions. 1. In all cases of pleuritic effusion, the first change in the position of the heart consists in a rotatory movement round the long axis from right to left, the apex invariably turning to the right. 2. This rotation depends upon the increased filling of the right side of the organ, in consequence of narrowing of the blood-current in the pulmonary artery. 3. With increase of the exudation and diminution of negative pressure within the corresponding pleura, the difference in pressure between the affected and healthy pleura finds its expression in a displacement of the heart towards the healthy side; the displacement to the right (*i.e.* in cases of left-sided effusion) always being greater and developing more rapidly than that to the left. 4. The apex and the base are displaced simultaneously, but the former in a greater degree than the latter. 5. Positive pressure of an exudation acts only on the distended pericardium and mediastinum, but not at all on the heart itself. 6. Therefore, any extensive displacement of the heart, under the influence of sudden or forcible movements of a patient, cannot take place, for the force of pressure is not excited on the heart, but on various other very elastic structures. 7. In cases of very considerable pleuritic effusions, no rotation of the heart (from right to left) is usually observed; the organ may even appear rotated from left to right under the positive pressure produced by the exudation on the right side of the heart. 8. The sudden death of pleuritic patients cannot be caused by displacement of the heart and sudden compression of the inferior vena cava (as Bartels teaches); for neither experimental cardiac displacements, nor a few minutes' compressions of the vein in dogs, could bring about any attack of syncope; besides, as it is already stated above, any extensive displacement of the

heart in a pleuritic patient is impossible. 9. As the author's experiments show, a heart which is exhausted from accommodative work in a case of the pleuritic effusion, may be easily and irreversibly stopped by irritation of one of the vagus nerves; from this experimental fact, he concludes that pleural inflammation spreading over the mediastinum may exhaust the heart through directly acting on the cardiac nerves, and so may produce an attack of syncope. According to the author, syncope may occur even in cases of scanty effusion, or after the operative removal of the fluid and after cessation of the compensating work of the heart. As one of the causes leading to exhaustion of the heart, the author points out an excessive quantity of carbonic oxide present in the blood of pleuritic patients. In conclusion, Dr. Tchirkoff recommends, while operating in empyema, to keep in view that an exhausted heart may be easily stopped in a reflex way, *e.g.* in consequence of pain caused to the patient. [See a clinical study, by Dr. Leichtenstern, of sudden death in pleuritic affections, in the *LONDON MEDICAL RECORD*, Dec. 1880, p. 488.—*Rep.*]

191. *Chomiakoff and Kotorshchikoff on the Origin of Respiratory Murmurs.*—Having repeated the experiments of Aufrecht and Halbertsma, and completed a series of the experimental researches of their own, the authors (*Dnevnik Kazan. Obst. Vrachei*, Nos. 13 and 14, 1881) sum up their results as follows. 1. Aufrecht's theory is incorrect; that is, the bronchial respiratory murmur does not in the least depend upon the movements of quiescent air-columns within the lung. 2. The bronchial murmur originates exclusively in the larynx; the friction of air against the walls of large bronchi does not give rise to these sounds. 3. The vesicular respiratory murmurs are of a compound nature. A large part of them have a laryngeal origin; that is, the bronchial murmur originated in the larynx, while passing through the normal tissues of the lungs, changes its characters, and is heard on the lung-surface as a vesicular murmur. The remaining part of the vesicular sounds originates on the periphery of the lung, but the authors are not as yet able to elucidate its mechanism.

192. *Veljanin on Diagnosis of Aneurism of the Ascending Aorta.*—In cases of aneurism of the ascending aorta, Professor Botkin attributes a great diagnostic value to a specific asthma characterised by short duration and high intensity of paroxysms. According to his teaching, the periarterial inflammatory process spreads on the cardiac nervous ganglia situated close to the origin of the aorta, producing a cardiac neurosis which disturbs the pulmonary circulation and the regularity of the gaseous changes. *Post mortem* examination several times confirmed Botkin's diagnosis, which had been based chiefly on the presence of this pathognomonic asthma and a slight dullness along the left parasternal line. To these cases, Dr. P. N. Veljanin (Botkin's *Ejendeln. Klin. Gaz.*, 1881, No. 31) adds a new confirmatory instance occurring in a patient, aged 59, who seemed to suffer from an insufficiency of the aortic valves, but at the same time presented asthmatic paroxysms which lasted from one to three minutes, coming on in half-an-hour intervals every day between 6 P.M. and 2 A.M., during which the patient's face grew pale, the extremities cold; respiration rose from 22° to 77° or 56°, the pulse to 120°, the abdomen fell in, the eyeballs became bloodshot, the jugular veins swollen, the cardiac dullness increased.

In view of these asthmatic paroxysms (as well as in view of not less significant inconstancy of aortic diastolic murmur which disappeared at the height of every paroxysm, and was replaced by a clear sound) aneurism of the ascending aorta was recognised, and the necropsy, forty days later, fully verified the diagnosis. There were present aneurism of the bulbous aorte, atheroma of the main vessel and its branches, and hypertrophy of the left ventricle, the aortic valves being normal.

193. *Simanovsky on a Case of Congenital Heart-Disease*.—Dr. N. P. Simanovsky records (Botkin's *Ejenedeln. Klin. Gaz.*, 1881, No. 23) an instance of congenital cardiac disease in a boy, aged 15, who presented the following remarkable symptoms: 1. Two synchronous and rhythmic apex-beats, one between the fifth and sixth left ribs, a little to the right from the left nipple, another between the fifth and sixth right ribs, about one inch to the left from the right mammillary line; 2. An enormous hypertrophy of the right half of the heart; 3. Retardation of the pulse in all arteries; 4. Both sounds at both apices clear and loud; 5. A loud systolic murmur in the pulmonary artery, which was best audible midway between the left sternal edge and mammillary line, and was propagated as far as the acromial end of the clavicle. This murmur seemed to be uninterrupted, but increased with systole; the first pulmonary sound was audible, but very faintly and indistinct, the second accentuated. Since early childhood the boy suffered occasionally (on exertion) from palpitations, dyspnoea, cyanosis, &c. According to the author, this is a case of congenital stenosis of the pulmonary artery. The retardation of the pulse and an uninterrupted pulmonary murmur he ascribes to the patency of Botl's duct. As to the presence of two apex-beats, Professor Botkin attributes this extraordinary phenomenon not to diplocardia, but to a vast amount of hypertrophy of the right ventricle, with formation of a regular additional apex.

V. IDELSON, M.D.

194. *Adam on the Drainage of Anasarca*.—It is known that unpleasant results, or rather accompaniments, occasionally occur in the drainage treatment of anasarca, even by Dr. Southey's improved method. Dr. Adam, of Melbourne (*The Australian Med. Gaz.*, August), thinks that there are leading factors causing the irritation of the skin in cases of anasarca, which result frequently either in simple erythema, erysipelas, or abscess. In the first place, in an œdematous limb the skin-elements become compressed and their vitality is lowered by interference with their nutrition. This is well illustrated when an ulcer forms, cicatrization will not take place until the œdema be reduced—in other words, until nutrition is restored to the skin-elements, when the sore usually heals kindly, only to break out again as the dropsy re-accumulates. The second factor appears to be the presence of an irritating body—the dropsical fluid—which possesses a weak alkaline reaction. Now it seems probable that any fluid possessing a positive reaction (ether acid or alkaline) flowing over a skin that is badly nourished, and whose epithelium is put on the stretch, will be quite a sufficient irritation to cause untoward complications. Taking this view of the case Dr. Adam, after some previous trials, finally has adopted the following method, which he thus describes. 'Moderately sized Turkey sponges were thoroughly soaked in saturated solution of boracic acid, squeezed dry, and applied over the punctures, and kept in

position by a turn of bandage lightly applied. These sponges require to be removed in the course of two or three hours, and the accumulated serum squeezed out and again soaked and re-applied. In this manner a couple of pints or even more of serum could be drained in the course of twenty-four hours.' In all the cases Dr. Adam tried this plan there was not the slightest trace of irritation of the skin. Of course there is no method but which will have its disadvantages, and this is no exception to the rule. The attention required, although great, is not insurmountable. For any case in which this method would be admissible would want considerable nursing, and no extra labour would be involved by it. Perhaps the greatest disadvantage is that the punctures require to be repeated nearly every twenty-four hours. But this is not so painful as may be supposed, for the skin, by tension and loss of vitality, is rendered less sensitive. Another disadvantage is that in some exceptional cases only a drop or two of fluid follows the puncturing. The cause of this probably is that the serum contains too much albumen, or it may be, as Prof. Spencer calls it, solid œdema. Dr. Adam's most successful cases as regards draining were those in which the dropsy was due to cardiac insufficiency. (Edema due to Bright's disease as a rule did not drain so easily.)

195. *Rosenbach on the Diagnosis of Spurious Heart-Murmurs*.—Dr. Rosenbach (*Trans. of German Med. Congress*, 1882) recommends the following simple procedure to determine the pneumocardial nature of any murmur. Firm pressure is made with the tip of the finger in an intercostal space at the point of maximum intensity of the murmur. In this way, the portion of lung in which the murmur is produced is pushed away from the heart, and the heart itself is also pressed back, and is prevented from transmitting its pulsations to the lung with force sufficient to give rise to a murmur. The spurious extracardiac murmurs are thus greatly weakened or entirely suppressed, while no effect is produced upon the true cardiac murmurs.

196. *Rühle on the Uræmic Seizure*.—Dr. Rühle (*Trans. of German Med. Congress*, 1882) states that in every case of death from uræmic convulsions œdema of the brain is found to exist. But simple œdema of the brain does not cause convulsions, and some toxic agent must be added to the serous exudation to produce this condition. That chemical changes accompany the uræmic attacks, is shown by the fact that the gastric secretions become alkaline and that the breath turns litmus-paper blue. So soon, therefore, as œdema of the brain comes on in the course of these, as yet undefined, blood-changes, it acts as a poison and gives rise to convulsions.

197. *Simoneau on Fatal Tetanus Complicating Typhoid Fever*.—Dr. Simoneau relates the following (*Jour. de Méd. et de Chir.*, August 1882). A man, aged sixty-six, was attacked with typhoid fever of rather severe form, and a little irregular in its symptoms. The fever had begun to abate, and the patient was supposed to be entering upon convalescence, when he was suddenly seized with vomiting and pain in the epigastrium. On palpation, a rigidity of the muscles of the right side of the abdomen was noticed. A few days later the muscles of mastication became affected, and the patient developed all the symptoms of tetanus and died in thirty-six hours. The hygienic surroundings of the patient were of the best, and no cause for the tetanus could be discovered. Dr. Simoneau could find no

similar case reported of tetanus complicating typhoid fever.

198. *Leroux on Hereditary and Congenital Mal-aria*.—In an article on this subject in the *Revue de Médecine*, No. 7, 1882, Dr. Charles Leroux concludes as follows. 'Owing to a lack of sufficiently numerous and definite observations, it is impossible as yet to affirm the existence of congenital malaria, or to determine the rôle played by heredity in the etiology of infantile malaria. The fact, however, of congenital hypertrophy of the spleen, accompanied by certain characteristic lesions of malarial cachexia in the infants of women suffering from intermittent fever, would seem to point to a congenital or hereditary malaria. Some children appear to have at birth an hereditary predisposition to malarial fever, even when not exposed to any causes from without. They are often seized, shortly after birth, with a remittent fever of the same type as that displayed by the mother.' The author leaves unsettled also the question whether the theory of heredity is able to explain the intermittent character of certain infantile affections, and the effect upon them of antiperiodic medication.

OBSTETRICS AND GYNÆCOLOGY

RECENT PAPERS.

199. TOLOCHINOFF, N. F.—On the Treatment of Pruritus Vulvæ. (*Pracheb. Vedom.*, No. 18, 1882, pp. 3175-7.)

200. RASUMOVSKY, M.—On the Nerves of the Mucous Membrane of the Gravid Uterus in Mammalia. (*St. Petersb. Inaug. Dissertation*, 1881.)

201. ORUNKOVA-GOLDINGER, ZENAIDE.—On a Case of Dysmenorrhœa Membranacea. (*Medic. Obozr.*, Jan. 1882, pp. 182-3.)

202. DRZVEZEK, L.—On Condurango in Cancerous Disease of the Uterine Cervix. (*Pracheb.*, 1882, No. 16, p. 261.)

203. BROWN.—Puerperal Albuminuria. (*Boston Med. and Surg. Jour.*, Dec. 21, Case 2.)

204. DEMBO.—Spontaneous Contractions of the Uterus in Mammals. (*Académie des Sciences*, Dec. 26, 1882.)

205. FIELD.—The Production of the Orgasmic Climax, without Sexual Appetite and without Sexual Intercourse. (*Boston Med. and Surg. Jour.*, No. 25, 1882.)

206. HAUSSMANN.—Quinine as an Oxytocic. (*Centralbl. für Gynäkologie*, Dec. 30, 1882.)

207. ASHTON.—The Treatment of Placenta Prævia.

208. HOMANS.—One Hundred Antiseptic Ovariectomies (*Boston Med. and Surg. Jour.*, Nov. 2, 1882.)

209. TRUZZI.—On Intra-Uterine Vaccination. (*Gazz. degli Ospitali*, Aug. 13 and 16, 1882.)

210. CURRIER.—Eucalyptus Globulus in Gynecological Practice. (*Amer. Jour. of Med. Sciences*, Oct. 1882.)

ART. 199. *Tolochinoff on the Treatment of Pruritus Vulvæ*.—Professor N. F. Tolochinoff describes (*Pracheb. Vedom.*, No. 18, 1882) the treatment he successfully adopts in endlessly varying cases of pruritus of the female external genitals. In all cases he recommends washing of the latter two or three times daily with a weak solution of bicarbonate of soda (half a tablespoonful in a basin of water with a tablespoonful of eau de Cologne). When irritation, redness, and tumefaction are only moderate, powdering with oxide of zinc and starch (1 to 6), or smearing with zinc ointment (5j. to 3j. of spermaceti ointment) are sufficient. When irritation is more considerable, and erosions and exulcerations are present, he applies in addition 2 per cent. car-

bolic solution, or $\frac{1}{2}$ per cent. solution of nitrate of silver, or lead and opium lotion (℞ Plumbi acetatis 5j., tincturæ opii 5ij., aquæ destill. lb. j.). In cases of simple eczema there are indicated Hebra's diachylon ointment, green soap, and other similar remedies. Pubic lice are best killed by the grey mercurial ointment. When pruritus is very severe, but the changes on the external genital parts are only slight, the best results are obtained from ice-dressing, smearing with carbolised oil (1 to 1), hypodermic injections of morphia, and the internal use of bromide of sodium (5j. daily). In cases of diabetic pruritus, the best means is the administration of alkaline mineral waters and salicylate of soda; the latter being useful, too, in pruritus accompanying chronic cystitis. In itching from gonorrhœal urethritis, the author cauterises the urethral walls with 10 per cent. of silver solution (by means of a silver or platinum probe). In cases of pruritus from colpitis, the latter is treated by the introduction every third day, through a speculum, into the vagina of a teaspoonful of silver solution (1 to 30), with subsequent plugging; the tampons (and solution) being left for twenty-four hours. Their removal is followed by an injection of tepid weak solutions of lead or borax. Very useful, too, is the introduction of a powder consisting of crude alum and starch (1 to 5), the powder being retained in the vagina by cotton-wool tampons. In cases of cervicitis and endometritis, itching disappears on dilatation of the cervix and an intrauterine injection of tincture of iodine or solution of nitrate of silver. A good palliative means, in cases of pruritus from uterine and vaginal catarrh, is plugging of the vagina with hygroscopic cotton-wool (changed twice a day), as first recommended by Dr. Gaillard Thomas.

200. *Rasumovsky on the Nerves in the Uterine Mucous Membrane*.—Dr. M. Rasumovsky (*St. Petersb. Inaug. Dissertation*, 1881) has examined a number of wombs, gravid as well as non-gravid, in rabbits, dogs, sheep, guinea-pigs, white rats, cats, and cows in order, first, to demonstrate the presence of the nerves in the uterine mucous membrane, and secondly, to study their relations with the glands, blood-vessels, stroma, and epithelium of this structure. Having killed an animal (mostly by puncturing the heart), he instantaneously opened its abdomen and excised a portion of the mucous membrane alone, or with subjacent tissues. The specimens were kept for fifteen to twenty minutes in chloride of gold solution of $\frac{1}{20}$ to $\frac{1}{4}$ per cent., then they were thoroughly washed and immersed in faintly acidulated (with acetic acid) water. The author arrived at the following results. 1. The uterine mucous membrane is profusely supplied with nerves. 2. They are amyelinic, and appear as axis-cylinders, either naked or enclosed in the sheaths of Schwann. 3. The mucous membrane of a gravid uterus presents the nerves far more numerous, and the individual nerve-stalks much thicker, than that of a non-gravid womb. 4. The membrane contains—at least in the beginning of pregnancy—a broad-meshed nervous network spreading through all its thickness. 5. In the points of ramification of nerve-fibres in the deeper layers of the mucous membrane, there are scattered isolated nerve-cells. 6. In the superficial layers of the membrane, in the region of the superficial capillary plexus, there is situated a narrow-meshed network composed of the finest nerve-filaments. 7. Some of these filaments terminate in the protoplasm of decidual

cells. 8. Some of the cells, situated in abundance alongside of blood-vessels, appear to have a close connection with the formation of new nerve-fibres. 9. There exist narrow-meshed nerve-plexus encircling the blood-vessels, especially the larger arteries of the mucous membrane. [Dr. Rsumovsky had finished his investigations just before the time when Dr. Patenkov's article concerning the same subject (see the LONDON MEDICAL RECORD, Jan. 1881, p. 21) appeared. Two recent papers on the innervation of the uterus may be found in the LONDON MEDICAL RECORD, 1879, p. 272 (by Drs. Basch and Hoffmann), and Oct. 1882, p. 423 (by Dr. Rein).—*Rep.*]

201. *Okunkova-Goldinger on a Case of Dysmenorrhæa Membranacea*.—Dr. Zenaide Okunkova-Goldinger (*Mediz. Obozr.*, Jan. 1882), at a meeting of the Moscow Medical Society, showed a membrane expelled from the uterus of a patient during a menstrual period. Examination showed that it was the hypertrophied mucous membrane of the whole uterus; its length measured $2\frac{1}{2}$ inches, its breadth at the level of the Fallopian tubes $2\frac{1}{2}$ inches, and at the level of the cervix 1 inch, and its thickness was 0.4 inch.

202. *Drzewiecki on Conturango in Cancer of the Uterine Cervix*.—The writer (*Wratch*, 1882, No. 16) used in a case an ointment made of two drachms of the aqueous extract of condurango bark to six ounces of vaseline. The ulcerated surface rapidly became cleaner, firmer, and smoother, and ceased to bleed, but the progress of the disease continued unchecked. One pound of the bark gave two ounces of the extract. V. IDELSON, M.D.

203. *Brown on Puerperal Albuminuria*.—Dr. Brown (*Boston Med. and Surg. Jour.*, Dec. 21, 1882) divides these cases into three classes—(1) pregnancies occurring in women already the subjects of chronic nephritis; (2) acute nephritis occurring as the result of pregnancy; and (3) albuminuria without renal disease. In the first class, pregnancy can act only prejudicially, and the risk to life is great; in the second class, convulsions are said to occur in one-fourth, and one third of these die. But after parturition recovery is quick and complete, the disease only exceptionally becoming chronic. The third class is of little importance. The quantity of urine excreted is a guide to prognosis; the more scanty it is the greater is the liability to convulsions. He records a case of convulsions in a young unmarried lady, when examination showed albuminuria and an abdominal tumour. She was shortly afterwards confined at the sixth month, and died in about a year of scarlatina. In that case there was a history of uræmia, and the Bright's disease probably preceded the pregnancy. He also records a case of amaurosis and hæmorrhage, with albuminuria, but no proper convulsions. The case terminated by atrophy of the optic discs. [This was probably the result of the excessive hæmorrhage.—*Rep.*]

ROBERT SAUNDEN, M.D.

204. *Dembo on Spontaneous Contraction of the Uterus in Mammals*.—After having experimented on 123 animals, M. Dembo has arrived at the following conclusions.

1. There are, strictly speaking, no spontaneous contractions of the uterus; but this organ is capable of easily contracting under the influence of different agents. Each contraction so called spontaneous is due to a physical or mechanical cause. 2. The gravid uterus is always more apt to give spontaneous contractions so called than a non-gravid uterus,

especially under the influence of thermal excitation. In the cow where one uterine horn alone is gravid, we see under the influence of similar excitations that the pregnant horn contracts more energetically than the non-pregnant horn of the same uterus. 3. The uterus of a very young rabbit occasionally gives spontaneous contractions in a more energetic manner than occurs in the womb of an adult virgin. 4. When the belly is carefully opened, in a well warmed room, so called spontaneous contractions are rarely observed. In order to thoroughly understand the *raison d'être* of these phenomena, M. Dembo has studied the action of the different agents—viz., electricity, heat, mechanical interference, and drugs on the uteruses of different animals at different ages. For instance, when the uterus or its inferior segment is directly excited by one of these agents, the following facts are observed. 1. The chemical action on the uterus is sometimes nothing; with chromic, nitric, and acetic acids applied on the lower segment of the uterus contractions are very rarely provoked, although the excitation of this segment is especially capable of determining uterine movements. 2. Mechanical action—friction, for instance—is one of the most constant excitants of the non-gravid or gravid uterus, whether it is still in its normal relations, or whether it has been previously separated from the animal. 3. Thermal excitants—warmth and cold—have a powerful action on all the above-mentioned animals. The degree of excitability of the uterus by these agents is in direct proportion to the difference between the temperature of the uterus and that of its ambient medium.

During pregnancy the excitability of the uterus by these agents becomes more and more marked. M. Dembo has succeeded in expelling two fœtuses from the uterus of a rabbit during labour by plunging its uterus into a bath of 45° C. (113° F.); whilst, on the other hand, the maximum induction current could not cause sufficient contraction to produce this result. This action of temperature explains why a gravid uterus often offers contractions the moment the abdomen of the animal is opened. The colder the surrounding air the stronger the contractions.

205. *Fifield on Sexual Orgasm, independent of Sexual Intercourse or Appetite*.—Dr. Fifield reports an interesting case, in which he had operated on a woman for pus in the pleura. She had a discharging fistula, and Dr. Fifield made an incision between the ninth and tenth rib, removing a large portion of one of the ribs. The patient did not improve after the operation, and had, what not unfrequently occurs with chronic discharges of pus, an alteration in the kidneys, leading to the presence of albumen in the urine. But what tormented the patient chiefly was a constantly recurring orgasm about the clitoris, half a dozen times a day, wearing her life away, in fact only ceasing with her life. In another case, that of a very religious, morbidly depressed, melancholy person, to whom Dr. Fifield was called in consultation, this same orgasm occurred night after night, causing great torment. No vaginal examination had been made previously to Dr. Fifield's visit, when there was found what was first mistaken for a prolapsed ovary, of the size of a large English walnut, upon the right side, and apparently immovable; a pessary was introduced, which threw the growth forward and held it in position.

206. *Haussmann on the Oxytocic Action of Quinine on Pregnant Women*.—The observations regarding the oxytocic action of quinine are comparatively

numerous. Dr. Haussmann has collected a running account of the literature on this subject. He relates the following interesting case which came under his own observation. Frau N. had suffered from a typical neuralgia during her third pregnancy. She was treated with quinine. During the first days of the treatment, when she was about two months and a half pregnant, she experienced two hours after taking the drug, coincidentally with the commencement of the buzzing sensation in the ears, sharp uterine pains, which lasted two hours and resulted in considerable uterine hæmorrhage, which ceased after some period of repose. On the following day the labour pains recurred, but less than on the preceding day. Lastly, on one day, on which one and a half grains of quinine were taken on an empty stomach, they commenced almost immediately and lasted until the evening. On those days, on which no quinine was taken, no pains occurred. The action of the quinine was apparently increased by the neurotic and anæmic condition of the patient.

207. *Ashton on the Treatment of Placenta Prævia.* Mr. Ashton concludes a valuable and interesting paper by the following well-considered and suggestive conclusions. He is of opinion that the long forceps should take the place of version—(1) when operative interference is necessary and the head presents; (2) When the placenta prævia is partial; (3) In those cases in which it completely covers the os uteri at the beginning of labour, and after some progress has been made it only partially does so; (4) When exhaustion is present, either from the previous ill-health of the mother or from loss of blood. He is of opinion that version is indicated—(1) Where the cervical attachment of the placenta is too extensive to allow of the application of the forceps; (2) Where there is malpresentation of the child; (3) Where there is contraction of the pelvis, or any condition present which unusually indicates the operation. Lastly, craniotomy may be called for—(1) When exhaustion is very great; (2) When the case is complicated with those conditions which generally render it necessary. FANCOURT BARNES, M.D.

208. *Homans on One Hundred Antiseptic Ovariectomies.*—Dr. Homans (*Boston Med and Surg. Jour.*, Nov. 2, 1882) simply gives a table of his hundred cases. It is a very full one; but some remarks as to the exact method of operating, and a little more detail as to some of the fatal cases, would have added much to the value of the paper. There are eighty-seven recoveries and thirteen deaths; and if, as we have reason to believe, this includes the whole of Dr. Homans' ovariectomies, he is to be sincerely congratulated on his success. Few, if any, operators have had so small a mortality in a first hundred, and in America the mortality has up to the present time been much higher.

The causes of death are as follows:—in four, shock a few hours after operation; in one, hæmorrhage; in two, exhaustion; in one, diseased kidneys; in one, facial erysipelas; in one, acute mania on the eighth day (hereditary insanity in family); in one, heart-disease; and in two, no cause assigned. The death from hæmorrhage occurred in Dr. Homans' thirteenth case, from slipping of a catgut ligature; and in all the succeeding cases he tied with carbolic silk, burning off the tumour with Paquelin's cautery, and dropping the pedicle in. The two deaths from exhaustion occurred on the third and fifth days respectively. This is an unusual time for deaths from exhaustion, and suggests that the ex-

haustion was due to septicæmia. It is a pity that more details are not given as to temperature, pulse, &c., in these two, and also in the cases recorded as dying from diseased kidneys and heart respectively. There are two other deaths, presumably from septicæmia; but the cause of death is not distinctly stated. The deaths from facial erysipelas and acute mania must be regarded as accidental misfortunes for the operator's statistics. The hæmorrhage case is a death from a preventable cause, and the cases of death from shock in a few hours disappear in the second fifty; so that we may fairly hope that, when Dr. Homans publishes his next hundred he will show that the following modest statement, which he makes in a foot note, is falsified. 'This is about as well as I can do unless I refuse the desperate cases.' It is significant that there is only one mention of the drainage-tube, and the patient died. The average weight of the tumours leads to the supposition that Dr. Homans is in favour of early ovariectomy, and in this we cordially agree with him. Dr. Homans uses the spray and the full Listerian method; and the absence of all mention of carbolic acid and carbolic nephritis is notable after all that has been said lately on this side of the Atlantic. About 50 per cent. of the cases seem to have been practically free from adhesions, and this is rather a large proportion of simple cases. In two the weight removed was unusually great, 110 and 80 to 90 lbs. respectively; the first was one of the accidentally fatal cases, and the second recovered. We hope Dr. Homans will publish a short appendix to his table, giving the details suggested, and his experiences as to the effect of the American climate on the success of ovariectomy. Up to the present time, this has been put forward as a reason why the success is not so good as it is in Great Britain. Dr. Homans' results hardly support the theory. J. KNOWSLEY THORNTON.

209. *Truzzi on Intra-uterine Vaccination.*—Dr. Truzzi (*Gazz. degli Ospitali*, Aug. 13 and 16, 1882), as the result of twenty-one experiments, concludes that vaccination in newly born children is always successful, whatever has been the result of the maternal vaccination. Pregnant women in any period may be vaccinated without danger to mother or child, but this vaccination does not give the child the immunity it gives the mother.

G. D'ARCY ADAMS, M.D.
210. *Currier on Eucalyptus Globulus in Gynecological Practice.*—Dr. Andrew F. Currier reports in the *Amer. Jour. of the Med. Sciences* for Oct. 1882 five different cases of various natures in which the local application of this drug on vaginal plugs proved of the greatest anæsthetic value. Besides its anæsthetic effects it is, as we know, antiseptic and antiperiodic; and hence it will be of use in that large class of cases where foul-smelling discharges exist, and also as an adjuvant in the treatment of malaria. The absorptive function of the vaginal mucous membrane has been comparatively little employed in constitutional treatment, and this is a field which yet remains to be worked up. A daily application of this substance must have more than a local influence. It will usually be difficult to give treatment so frequently, excepting in hospital practice. Much better results would follow could a continuous effect of this, as well as of some other means of treatment, be obtained; but the expense and the annoyance, and in many cases the dread of pain, prevent. The very fair degree of success ob-

tained in treating the cases described in this paper leads him to believe that in less severe cases we can feel almost positive that we can give great relief; indeed, his experience in private practice confirms that belief. In a quite different class of cases, eucalyptus will also be serviceable. He refers to wounds of the breast after the removal of tumours. With the increasing favour of the open method of treating such wounds, especially when the growth removed has been of a cancerous nature, its stimulant and antiseptic properties will prove very acceptable.

SYPHILOGRAPHY.

RECENT PAPERS.

211. TOMASHEVSKY, S. P.—On the Influence of Excision of the Initial Syphilitic Induration on the Appearance and Course of Subsequent Syphilitic Phenomena. (*Urtch*, 1882, No. 16, pp. 251-3, and No. 17, pp. 270-2.)

212. AFONSKY.—On Subcutaneous Injections of Corrosive Sublimate in Syphilis. (*Ibid.*, 1882, No. 14, p. 227.)

213. SHIRIAFF, P. A.—On Two Cases of Syphilitic Disease of Brain-Arteries. (*Mediz. Ober.*, March 1882, pp. 440-5.)

214. BECHTEREFF, V. M.—On Syphilitic Disease of Brain-Tissue. (*Ibid.*, March 1882, pp. 450-2.)

215. TEISSIER.—Contribution to the History of Syphilitic Disease of the Heart. (*Ann. de Derm. et de Syph.*, No. 6, 1882.)

216. BUMM.—On Excision of the Syphilitic Chancre. (*Viertelj. für Derm. und Syph.*, Heft 2, 1882.)

217. HASLUND.—On the Behaviour of the Spleen in Syphilis. (*Hop. Tidnde*, Nos. 2 and 3, 1882; and *Viertelj. für Derm. und Syph.*, Heft 2, 1882.)

218. ENGEL.—The Diagnosis of Pulmonary Syphilis; its Differential Diagnosis from Pulmonary Tubercular Phthisis, with some Remarks on the Pathology of Lung Syphilis. (*Phil. Med. Times*, Oct. 7, 1882.)

219. CARLIER.—On Pulmonary Syphilis. (*Thèse de Paris*, 1882; and *Revue des Sciences Médicales*, Oct, 1882.)

220. COHADON.—On Albuminuria in Secondary Syphilis. (*Thèse de Paris*, 1882.)

221. RAMFOLD.—On Hypodermic Injection of Calomel. (*Ann. Univ. di Med. e Chir.*, Oct, 1882.)

222. BIRCH-HIRSCHFELD.—On the Micro-Organisms of Syphilitic New Growths. (*Centrabl. für die Med. Wiss.*, Nos. 33 and 44, 1882.)

223. LOWNDIES AND BERNARD.—The First Five Years' Work at the Liverpool Seamen's Dispensary for Venereal Diseases. (*Lancet*, Nov. 11, 1882.)

224. HENDERSON.—Gummata of the Heart. (*Ibid.*, Nov. 25, 1882.)

225. LELOIR.—Indurated Chancre between the Second and Third Toes. (*Ann. de Derm. et de Syph.*, Nos. 9 and 10, 1882.)

226. ATKINSON, I. E.—Syphiloderma Papulosum Circinatum. (*Jour. of Cutaneous and Venereal Diseases*, No. 1, 1882.)

227. STURGIS, F. R.—Syphilitic Dactylitis of Acquired Origin. (*Ibid.*, No. 2, 1882.)

228. REMONDINO.—Total Loss of the Penis from Venereal Ulceration. (*Ibid.*)

229. HENDERSON, EDWARD.—Salicylate of Soda in Acute Orchitis complicating Gonorrhoea. (*Lancet*, Dec. 16, 1882.)

230. DRYSDALE.—The Treatment of Syphilis. (*Ibid.*)

231. ROUTH.—The difficulty of Diagnosing True Syphilis in Females. (*Ibid.*)

Urtch, 1882, Nos. 16 and 17, Dr. S. P. Tomashevsky publishes the results of excision performed by him in fifty patients at Professor V. M. Tarnovsky's Clinic, in St. Petersburg. In forty-four cases (86 per cent.) the indurated sore was excised within two weeks after its appearance; in the remaining six cases, at periods between seventeen and thirty days. In twenty-two cases the lymphatic glands and vessels, at the time of the operation, were healthy; in forty-eight there were present lymphangitis of the dorsum of the penis, or swelling of the inguinal glands, or both. In all fifty patients operated on general syphilis subsequently followed. The author comes to the following general conclusions. 1. The initial syphilitic induration is not a result of a purely local lesion (as Hueter, Auspitz, Folinea, and others think), but the first objective symptom of the general infection of a patient's system. 2. Therefore, excision of the primary syphilitic sclerosis, whenever performed, cannot save a patient from secondary symptoms. 3. When the whole induration is fully removed, the wound, in the majority of cases, heals by the first intention. 4. In a considerable majority of cases operated, there is no reappearance of induration at the spot of excision. 5. Though unable to cut short the general syphilitic process, excision of the whole primary sclerosis can considerably shorten the course of the local lesion. 6. The operation does not exercise any influence on the subsequent evolution of the general process. 7. It does not change the duration of the second incubatory stage. 8. There is no difference between operated and non-operated cases in regard to the general character of the lymphatic symptoms which are developed at this stage, and of all symptoms preceding the appearance of syphilitic rash. 9. There is no difference, also, in regard to the subsequent syphilitic lesions of the integuments, mucous membranes, &c. 10. There is no difference, further, in regard to the influence produced by syphilitic infection on the general state of the health. 11. The duration of treatment of the patients operated on is, on the average, equal to that of the non-operated. 12. Lastly, there is no difference whatever between the two categories of cases in regard to relapses of syphilitic phenomena. [In 1877 Professor Tarnovsky, in his editorial annotations to the Russian translation of Lancereaux's handbook on syphilography, stated that, up to the date, he had performed excision in ten cases, in all before the appearance of any lymphatic changes. In all ten patients secondary symptoms were developed, but in the majority of cases the duration of the second incubatory stage was considerably lengthened beyond the average, and the symptoms were unusually mild. Exactly the same results have been obtained by Professor P. Gratziansky, of St. Petersburg. Some papers concerning the same subject may be found in the LONDON MEDICAL RECORD, 1880, Nov., p. 446 (Chadzynski's); 1881, Feb., p. 78 (Zeissl's); June, p. 241 (Mauriac's); 1882, June, p. 242 (Rasori's).—*Résumé*.]

212. Afonsky on Subcutaneous Injections of Corrosive Sublimate in Syphilis.—Dr. Afonsky, of Smolensk (*Urtch*, 1882, No. 14) treated fifty successive cases of syphilis, in all stages after the disappearance of primary chancre, by subcutaneous injections of the following solution:—℞ Sublimati gr. vj.; sodii chloridi ℥ss.; aq. destill. ʒjss. A syringeful (½ of a grain of mercury) was injected in the dorsal region every other day. The symptoms disappeared.

ART. 211. Tomashevsky on Excision of the Initial Syphilitic Sclerosis.—In a valuable paper, in the

after from five to thirty injections, on an average, after twelve or thirteen. For fifty patients treated after this method, the average stay in hospital was thirty-five days; whilst for fifty-five treated by mercurial inunctions and internal administration, it was seventy-two days. In no case did any local trouble, save some tumefaction, occur; pain about the seat of injection was only slight, though lasting, in some instances, one or two hours. Salivation was observed but once (after fifteen injections, in a patient who just before suffered from scurvy). The author enumerates the following advantages of this method: rapidity of action, cleanliness, the precision of the dose, the reduction of the quantity of mercury required for cure, and cheapness. [With regard to the subject of treatment of syphilis by hypodermic injections of mercury and its preparations, see Fürbringer's paper in the LONDON MEDICAL RECORD, March 1880, p. 93; Terrillon's, *ibid.*, April 1881, p. 159; Streitz's, *ibid.*, Feb. 1882, p. 46; Martineau's, *ibid.*, Feb. 1882, p. 47, and Dec. 1882, p. 512-3.]

213. *Shirreff on Two Cases of Syphilitic Disease of the Cerebral Arteries.*—The writer (*Mediz. Obzr.*, March 1882) records two cases of malignant syphilis in male patients, aged 55 and 30, one of whom presented, of cerebral symptoms, only cephalalgia and sleeplessness; the second, in addition, right hemiplegia, exaltation, and, during the last five hours of his life, general convulsions, with loss of consciousness. The necropsy revealed chronic inflammation of the cerebral membranes, and extensive alterations of the basilar and Sylvian arteries, which were closely similar to those described by Heubner as endarteritis luetica. As it is well known, Heubner (in his important work published in 1877) asserts that the syphilitic poison circulating in the blood has an irritant action on the arterial walls, and gives rise to proliferation of epithelioid cells, with subsequent transformation of embryonic elements into fibrillar connective tissue, which leads to obliteration of the lumen of a vessel. Dr. Shirreff, however, in common with Friedländer, Baumgarten, Cornil, and others, denies the existence of a specific primary endarteritis. Careful microscopic investigations into the changes found in syphilitic placenta and umbilical vessels (the investigations which he carried out during two years, and the results of which he published in his inaugural dissertation in 1881) led him to the conclusion that Heubner's endarteritis luetica is only one of the varieties of common endarteritis obliterans, with organisation of thrombi. The examination of alterations in the cerebral arteries in the present two cases confirmed the thrombotic nature of the obliterative changes which, the author thinks, started under the influence of a chronic inflammatory process in the meninges.

214. *Bechtereff on Syphilitic Disease of Brain-Tissue.*—Dr. V. M. Bechtereff (*Mediz. Obzr.*, March 1882) furnishes the details of two fatal cases of cerebral gummatum, in a woman aged 40, and in a man aged 49, and carefully describes the microscopic appearances of the brain-lesion. Studying the development of syphilitic disease of brain-tissue, the author arrives at the conclusion that the process begins with irritative changes in the wall of the vessels, and extensive emigration of leucocytes. The latter accumulate themselves around the vessels, and are transformed into star-shaped cells, which present an essential ingredient of the syphilitic neoplasm. These star-like elements gradually recede from the centre to the periphery, and form

successively concentric rings of fibrillar connective tissue. Simultaneously with the development of the latter, there begin obliteration of the central vessel, and muco-colloid and granular fatty metamorphoses, which lead to the formation of a cavity filled with detritus. The detritus may be absorbed, and then the whole gummatous mass may disappear, leaving a firm cicatrix. In contradiction to Charcot and Gombault, who think that the stellate cells of a gumma are developed from neuroglia, Dr. Bechtereff asserts that the latter simply disappears under the pressure of a growing neoplasm.

V. JENSEN, M.D.

215. *Teissier on a Case of Syphilitic Disease of the Heart.*—Professor Teissier, of Lyons, reports (*Ann. de Derm. et de Syph.*, No. 6, 1882) the case of a prostitute, aged 27, who was admitted into the Hôtel Dieu under his care on March 14, 1882. The history was that the patient had been seized on the same day, after dinner, with pain in the stomach and bowels, followed by a feeling of oppression. These symptoms rapidly increased, dyspnoea being particularly distressing. In the evening the face was purple, the expression very anxious, the pulse small and irregular, and difficult to count. The patient died next day. *Post mortem*, the walls of the right ventricle and the septum ventriculorum were almost entirely converted into a hard tough fibrous tissue, which creaked on section. The walls of the left ventricle appeared to be nearly healthy, but the endocardium on both sides was more or less dull white and thickened. There were also numerous small white caseous masses, scattered both in the apparently healthy muscular substance, and in the fibrous tissue which had replaced it. The other organs of the body were healthy, with the exception of the kidneys, in which were found gunny nodules similar to those in the heart. The previous history of the patient was that she had been an excessive smoker and drinker of absinthe, that she had never been ill until 1875, when she contracted gonorrhoea, and was treated at the Antiquaille Hospital. In 1876 she again had vaginitis, and in 1879 she was in hospital with mucous patches of the throat and ulceration of the womb. Since December 1879 she had not shown further signs of syphilis, and had continued in apparently good health up to the time of the fatal attack, except that she was subject to oppression or palpitation on walking quickly or going upstairs.

216. *Bumm on Excision of the Syphilitic Chancre.* In a long paper on this subject (*Wochenschr. für Derm. und Syph.*, Heft 2, 1882), based upon the results of excision of the initial lesion of syphilis in the clinic of Professor von Reinecker of Würzburg, Dr. Bumm states that excision has been practised since 1877 in all cases where the primary sore was clearly of a syphilitic nature, and in which the duration, size, and seat of the sore were favourable for its complete removal. The author then tabulates a selection from the cases of the last four years, dividing them into two groups. The first table contains twenty-seven cases, in which either the sore alone or both sore and enlarged inguinal glands were removed. In fifteen of these, in which the primary sore only was excised, there was no glandular enlargement in eleven, although thirty days or longer had elapsed since contagion in six of them. In the remaining four cases in which the time after contagion was sixty-five, fifty-seven, sixty-five, and thirty-five days respectively, enlarged glands were present. Of these fifteen cases three are marked successful, that term

being used only after a minimum period of six months' observation. In none of these three cases was there enlargement of the neighbouring glands, and the length of time between contagion and excision was thirty, eighteen, and thirty-one days respectively. The remainder of the fifteen were either too short a time under notice, or were still under observation. In twelve cases, the enlarged glands were excised as well as the primary sore, and of these two are put down as successful. In these, the interval between contagion and excision was forty-five and forty-two days. In the other cases, the result was negative in five; four were still under observation; and in one the subsequent course was that of a soft sore. It is worthy of note that in only four of the whole twenty-seven cases did induration reappear in the scar of the excision-wound; indeed, in the second table this last point appears to be the only one considered; for in the sixteen cases which it comprises excision was not performed until after the appearance of general symptoms. In three, the primarily enlarged glands were removed also. In only three of these did hardening of the scar take place, the three cases in which both glands and sore were excised being among those in which induration did not recur.

217. *Haslund on the Spleen in Syphilis*.—Dr. Haslund, of Copenhagen, begins a paper on this subject (*Hosp. Tidende*, Nos. 2 and 3, 1882; and *Viertelj. für Derm. und Syph.*, Heft 2, 1882) with some remarks on the difficulty of determining the changes of the spleen in syphilis; firstly, because it is an organ which during life is only imperfectly accessible to physical examination; secondly, because its function is but little known; and, thirdly, because syphilis, when it does cause death, is generally so mixed up with other pathological conditions, that it becomes a matter of difficulty in any given case to decide whether the change is really due to the syphilitic dyscrasia or to some accidental complication. At the bedside a swollen spleen can sometimes be made out, but, in the author's opinion, only in the early stage of syphilis, and in cases where the prodromata are so severe that they resemble the symptoms of typhoid fever. In such cases, Dr. Haslund has twice made out an increased area of splenic dulness, but this speedily disappeared as soon as the febrile symptoms had departed. Thus the author does not accept the views of Jullien, Bämler, Weil, and Wewer, who think splenic enlargement a rather common occurrence. It is more frequently the case that a spleen tumour in the early stages of syphilis turns out after death to be due to amyloid degeneration. This change, however, is not due to the syphilis itself.

In order to form an independent opinion on syphilitic affections of the spleen, Dr. Haslund examined the *post mortem* records of the Communal Hospital of Copenhagen for a period of fifteen years (1866-80). Among these he found 154 cases of children who died with inherited syphilis. In ninety-six the spleen was healthy. In the remaining fifty-eight cases the spleen was diseased, the change being due to hyperplasia in fifty-five; in fourteen of these the consistence of the tissue was normal, in thirty-one the organ was harder, and in ten softer than natural. Further, one case of infarct was noted, one of fibrinous deposit on the serous surface, and one in which there were thickening of the capsule and adhesions. In none of these three is there mention of alteration in size or consistence.

Among the fifty-five cases of hyperplasia, fibrinous deposits on the surface of the spleen were noticed nineteen times, scattered patches of thickening of the capsule four times, and adhesions to neighbouring parts once. Finally, in three cases there were miliary tubercles in the spleen, associated with tuberculosis of other organs. As regards the significance of these changes, the author is of opinion that the simple hyperplasia must be considered to be in direct relation with the general disturbance of nutrition caused by syphilis; but whether it be a cause or a consequence of the cachexia must remain doubtful until the functions of the spleen are better understood. The other changes noted are considered to be not directly due to syphilis. Among the 154 cases there were not one of amyloid degeneration, and in only one were gummata mentioned in the report.

The author also examined the *post mortem* records of forty-four adults who died during the course of syphilis in the same department of the hospital during the same series of years. In three of these there was amyloid degeneration of the spleen. This change, Dr. Haslund thinks, is always dependent on chronic suppurative either in the superficial tissues, in the bones, or in the internal organs. Of the three cases just mentioned, there was old necrosis of the scapula and clavicle in one, ulcerated gummata of the skin in another, and suppurative pyelonephritis with calculi in the pelvis of the kidney and left ureter in the third. Among the forty-four cases there was no instance of gumma. In ten the spleen was healthy; in twenty-seven there was more or less hyperplasia, the organ being softer than natural in eleven, and firmer than natural in sixteen; scattered thickenings of the capsule were noted in two cases, and adhesions to the surrounding parts in four cases.

218. *Engel on the Diagnosis of Pulmonary Syphilis, &c.*—Dr. Hugo Engel relates (*Phil. Med. Times*, Oct. 7, 1882) the case of a man aged 32, in a good position of life, who, when he came under observation (in April 1881) appeared to be in the last stage of tubercular phthisis. He was tall, very slim, with a pale face, feverish spots on the cheeks, sunken but brilliant eyes, flat chest, long bony fingers, and a hollow cough. He had had good health until twenty-four years of age, when he had a venereal sore which soon healed, but was followed by a syphilitic eruption, sore throat, and alopecia. He was well treated and appeared cured after about two years. Two years before he came to Dr. Engel, he began to complain of osteocopic pains, which were worse at night. Afterwards, an ulcer appeared on the left shin, and still remained. Early in 1880 he began to cough, then lost flesh, and suffered from night-sweats. For two months he had been spitting blood and brownish grey masses. There was no family history of tuberculosis. On examination, there was dulness over the left infraclavicular region, and a little lower there were signs of a cavity. At the right apex expiration was prolonged, and dry and moist sounds could be heard there as well as over both sides posteriorly. Dr. Engel found that the patient's nails were not clubbed, and this, together with the peculiar sputa and the sore on the leg, led to a diagnosis of syphilitic disease. Under mercurial inunction, followed by iodide of potassium, the patient recovered.

219. *Carlier on Pulmonary Syphilis*.—M. Carlier (*Thèse de Paris*, 1882; and *Revue de Sciences Méd.*

cases, Oct. 1882) agrees with Fournier that, except in the inherited disease, pulmonary syphilis develops in two forms, sclerosis and gumma, which are generally associated together. He insists with Cornil, Sabourin, Brissaud, and other histologists on the difficulty, sometimes even the impossibility, of distinguishing between gumma and tubercle under the microscope, and considers that there are no clinical characters special to syphilitic disease of the lungs. The presence of syphilitic lesions elsewhere is almost the only sign of value, and recovery under specific treatment the only one which makes the diagnosis certain. Contrary to the opinion expressed by Grandidier, the author shows that the middle lobe is not 'almost exclusively the seat of the disease;' nor does he agree with Schnitzler that laryngeal syphilis is always present when the lung is attacked. A table containing a summary of seventy-six cases is appended to the thesis.

221. *Rampoldi on Subcutaneous Injection of Calomel.*—Dr. Rampoldi, of Pavia, recommends (*Ann. Univ. di Med. e Chir.*, Oct. 1882) the subcutaneous injection of 10 centigrammes of sublimed calomel in neutral glycerine, in preference to corrosive sublimate or cyanide of mercury. In a case of gummy iritis, improvement took place the day after the calomel injection was begun.

222. *Birch-Hirschfeld on the Micro-organisms of Syphilis.*—In a paper published in the *Centralbl. für die Med. Wiss.*, No. 33, 1882, Professor Birch-Hirschfeld describes certain organisms which he had found in syphilitic tissues as small rods or bacilli; but in a later communication, published in No. 44 of the same journal, he states that further observations, made under more favourable circumstances, on condylomata removed during life, as well as on a case of syphilitic gumma of the heart, have led him to modify his former opinions. He is now convinced that what he formerly described as rounded bacilli are really composed of several micrococci joined together. These micrococci are not round, but oval, and under a one-twelfth inch oil-immersion objective appear as short streaks, not as points. In most cases, both monococci and diplococci are present, but sometimes three or five are joined together, in which case, they are liable to be mistaken for bacilli. As regards the diplococci, the author confirms the observations of Aufrecht, who describes them as preponderating in condylomatous tissue. For showing the organisms in recent specimens, liquor potassæ is much better than acetic acid, for it brings out clearly the strongly refracting properties of the cocci, and does not cause a crystalline precipitate, which in the case of the acid is liable to cause confusion and error. In condylomata the micrococci lie mostly in small groups in the papillæ, and in many of the cells of the Malpighian layer. To demonstrate their presence, it is only necessary to incise a freshly removed condyloma which is not ulcerated with antiseptic precautions, scrape off some of the juice from the cut surface, dry it on a cover-glass, and fix and stain it with fuchsin or gentian-violet. In the gummata of internal organs, the micrococci are very small and numerous; in condylomata they are larger, and not so plentiful. In the scars of gummata, the search for micrococci has mostly been fruitless; in fresh gummy growths, they are most numerous in those parts which present the characters of growing granulation tissue. The organisms are scattered singly in some places, whilst in others they form small

groups, the size of which does not exceed that of a granulation or spindle-cell. Micrococci were also clearly seen by the author within the cells themselves. In many preparations, again, both of condylomata and gummata, cells (mostly epithelioid) were found, whose nuclei were filled with fine elements considered by the author to be intranuclear micrococci. These have also been mentioned by Klebs, who takes a similar view of their nature.

224. *Henderson on Gummata of the Heart.*—A man, aged 30, was brought moribund to St. Mary's Hospital and died in a few minutes (*Lancet*, Nov. 25, 1882). He had seemed well until a fortnight previously, when he began to complain of faintness and pain in the præcordial region. On his way to his work he suddenly staggered and fell, and was unconscious till death. *Post mortem*, the heart weighed 13½ ounces. The pericardium over the left ventricle was studded with pale yellowish-white elevations; there were also one or two over the right ventricle. The endocardium of the anterior wall of the left ventricle was studded with similar nodules. In the septum was a mass of fibroid tissue extending into the muscular substance, which was permeated by tissue with gummatous characters. The smaller vessels were narrowed by thickening of the intima. The liver had a depressed fibroid scar in the right lobe. The spleen was congested, firm, and adherent to the parietes. The other organs were healthy.

225. *Leloir on a Case of Indurated Chancre between the Toes.*—M. Leloir relates (*Ann. de Derm. et de Syph.*, Nos. 9 and 10, 1882) the case of a medical student in whom the initial manifestation of syphilis was situated between the second and third toes of the right foot. The patient was suffering from eczematous fissures between the toes, and acknowledged contact of the affected part with the lips of a woman who was afterwards found to be suffering from mucous patches of the mouth.

227. *Sturgis on Syphilitic Dactylitis of Acquired Origin.*—A male patient [age not stated.—*Rep.*] entered the Charity Hospital suffering from an early secondary papular syphilide (*Four. of Cutaneous and Venereal Diseases*, No. 2, 1882). He had also swelling of the second joint of the middle and ring fingers of the left hand, which had come on gradually during several weeks, and was not attended by marked pain. The fingers were twice as large as the corresponding ones of the right hand, and the swelling was confined to half an inch from the joint either way. The finger could not be bent. No pain was caused by handling, and there were no symptoms of acute inflammation. Green iodide of mercury was given internally, and mercurial ointment applied locally. In four weeks the swelling disappeared, and motion was completely restored.

228. *Remondino on Total Loss of the Penis from Venereal Ulceration.*—Dr. Remondino, of San Diego, reports the following case (*Four. of Cutaneous and Venereal Diseases*, No. 2, 1882). A native of Mexico, aged 31, in the middle of Dec. 1881 first noticed five sores on the glans penis and corona, the last coitus having presumably taken place at the end of November. Four of the sores healed in the course of a fortnight, but re-opened twenty days later. The fifth sore gradually ate its way through the glans which finally dropped off, and by the following June the whole organ had been destroyed. Dr. Remondino states that during all this time the man lived in the mountains, using the usual herb and

root remedies peculiar to Mexican rural practice, that he never had a bubo, and that he had only lately exhibited constitutional symptoms. His previous health had been good, and his brothers and sisters were healthy.

229. *Henderson on Salicylate of Soda in Acute Orchitis*.—Dr. Henderson, of Shanghai, reports (*Lancet*, Dec. 16, 1882) three cases of gonorrhoeal epididymitis in which the symptoms were rapidly relieved by salicylate of soda. In using it, Dr. Henderson advises that only acute cases, *i.e.* those in which there is distinct rise of temperature, be selected. The dose should be not less than 20 grains, repeated every hour until at least three doses have been taken; afterwards at longer intervals.

ARTHUR COOPER.

232. *Rational Treatment of Gonorrhoea*.—A surgeon, signing himself 'Trocar,' states in the *Lancet*, Sept. 1882, p. 602, that for the rational treatment of gonorrhoea he gives regularly 5 gr. doses of iodide of potassium and full doses of cubebs in powder every three hours. The cubebs in drachm doses, he finds, seldom or never fails to cut off the ailment rapidly; and the iodide of potassium, besides its solvent influence on the essential elements of the powder, has a well-recognised action on the various mucous surfaces, as evidenced by the discharges to be noticed very frequently from the nostrils, eyes, &c., when it is administered for rheumatism; and it is simply invaluable for killing the poison of gonorrhoea.

RICHARD NEALE, M.D.

REVIEWS.

ARTICLE 233.

Lectures on Medical Nursing. By J. WALLACE

ANDERSON, M.D. Glasgow: Maclehose & Sons.

AMONG the efforts made in all parts of the country for the systematic training of nurses to attend the sick in hospitals and in private households, none have been regarded with so much favour, both by the nurses themselves and by those interested in the movement, as the voluntary help given by medical men attached to hospitals, who have shown their zeal in the cause by delivering from time to time short courses of lectures on those medical and surgical topics which are most likely to fall under the notice of the nurse in the course of her duties. The nurse may be said to be the handmaid of the doctor; and in this capacity it would at first sight appear that he above all others should be best qualified to judge of his own requirements, and how these can be most readily imparted to the understanding of the nurse. On the other hand, it may be a question whether the medical man, whom, we are willing to admit, it most concerns, is really the person best fitted to introduce a nurse into the mysteries of her art. The main business of nursing consists of a variety of miscellaneous occupations, which must be learnt by honest hard work under the eye of an experienced female instructor, who has herself passed through the divine drudgery; and oral instruction from the medical superior cannot be reckoned other than supplementary. For, after all, women are the best judges of women's work and women's capacity, and it is mainly to the matrons, sisters, and head nurses of our hospitals that we must look for that practical instruction which will enable the probationer, after a term of training more or less prolonged, to enter on responsible duty. This interval may be longer, but

should never be less, than one year, during which the tyro should acquaint herself with the manifold requirements of the sick, whether in medical or surgical wards: perform night as well as day duty, and at the same time be under the constant supervision of a qualified and intelligent head-nurse. Such is the ordeal which beginners have to pass through in the best hospitals, and it would be well if all hospitals throughout the country made this system of practical training a necessity before they ventured on a more ambitious curriculum. Not that we would disparage other means, especially lectures by medical men, to supplement the daily routine of practical work. As the field from which nurses are obtained becomes larger, as education advances, and ladies of culture and refinement volunteer their services for the work in increasing numbers, class-education must be considered, sooner or later, as an essential element of the training course. Miss Nightingale, in a recent article on nurse-training, in *Quinn's Dictionary*, gives an admirable account of the curriculum required of nurses associated with the training-school at St. Thomas's Hospital, from which we gather that instruction is imparted to the probationers by separate lecturers on Chemistry, Hygiene, Medicine, and Surgery, while a well-considered scheme of testing their efficiency and acquirements by regular examination is insisted on by those to whom the management of the school is entrusted. In such an organisation, we can discern the immense gulf which separates the nursing of the past from the present; but it may be questioned whether, amongst the multiplicity of lectures and preparations for examinations, the tyro nurse has sufficient time at her disposal to pursue the ordinary work which would naturally devolve on her. Such a system of tuition may be all very well as the type of what a school for nursing might be made, and no doubt is made, by the managers of the Nightingale Fund; but it is scarcely compatible with the requirements of hospitals in general, where, as a rule, the probationers are trained to supply the local wants, and during their term of training act as assistant nurses, when their time is fully taken up in performing their numerous ward duties, often more laborious than those of the head-nurses. If, however, oral instruction from medical men be given apart from the regular ward training, it is clear that it should not be beyond the capacity of the class who offer themselves for the work, and that it should consist of short courses of demonstrations on such subjects as are most likely to be of value to the nurse, always keeping in view the boundary line which separates, or rather which prevents, the nurse from encroaching on the province of the doctor. In dealing with women fairly educated, and where, as in a hospital connected with a medical school, there is no lack of tutorial help, a distinction can very well be made between medical and surgical nursing, although the duties pertaining to each department so constantly overlap that the distinction is more apparent than real. The elementary principles of physiology, anatomy, and hygiene, which must form the basis of all instruction of nurses, are common to both; while the minor details, comprising a knowledge of such appliances and medicaments as are used in the sick-room, with their methods of application, not to mention the general domestic management of the patients, are also alike. In furtherance of this view several manuals have been published, written chiefly by ladies, who have themselves

passed through the ordeal of training; while two or three volumes, consisting of short courses of lectures addressed to nurses by medical men, have appeared purporting to deal with the subject in a more scientific light.

Dr. Anderson's book treats of medical nursing only, the surgical branch being delegated, we assume, to one of his colleagues of the Glasgow Infirmary. It consists of a series of ten lectures, some of which are devoted to general subjects, and others to special diseases common to the medical wards of hospitals. It also contains a glossary of medical terms, and an appendix of very useful receipts for the preparation of invalid dietaries; the whole is written with an evident design not to over-reach the intelligence of nurses of the ordinary class, and is sufficiently comprehensive to include most subjects which in a medical point of view are likely to come within their province. Dr. Anderson starts with an exordium on the necessity of cultivating those habits of observation so frequently inculcated on the clinical student, accompanying his remarks with special directions for the taking of blood-temperature, pulse, and respiration. The directions given are concise and good, but we may doubt the expediency, except under special circumstances, of recommending the nurse to take the temperature by the rectum, since in the vast majority of instances it may be satisfactorily ascertained by placing the bulb of the thermometer in the armpit or in the mouth. We think also that a course of lectures on medical or any other form of nursing is incomplete without explanatory references to the position and functions of the various organs of the body, especially to the blood-circulation, the digestive organs, the kidneys, and the brain and nervous system, although it is but fair to state that some of the latter have been cursorily dealt with. The remarks on diet in special diseases, a subject too apt to be overlooked, are much to the purpose, and so also are the methods recommended for checking the extension of disease of an infectious character. Every manual on nursing contains some references to the treatment of bedsores, a calamity always to be dreaded by the nurse; and Dr. Anderson does full justice to the subject in its double aspect of prevention and remedial treatment. We are rather surprised, however, to notice the omission of a very useful application for preserving the skin in a threatened bed sore, the 'linimentum albuminis ovi,' which was at one time very popular with the nurses in Scotch hospitals, and also the thick felt plaster much employed in the London hospitals to protect the tender parts from undue pressure. The various appliances of the sick-room are assumed to be of as much importance in medical, as in the treatment of surgical cases, but there is little mention made of them, a fact which is possibly accounted for by the absence of all illustrations from the volume. Among such we might specialise the wringer, an useful appliance formed of a couple of sticks and a piece of stout canvas to protect the hands from being scalded in the preparation of a very hot fomentation, the India-rubber bags now used universally for the application of ice to the surface, the various forms of hot air, vapour, and medicated baths, and a variety of apparatus in great favour at the present time for purposes of inhalation. In his directions as to the administration of drugs, Dr. Anderson very properly refers to the mistakes which are liable to arise by using measures other than those of the Pharmacopœia. A tablespoonful is not always half an ounce, nor is a

teaspoonful a drachm; and drops and minims, though considered by most people as synonymous terms, are totally different things. Every nurse ought to supply herself, or be supplied with, the small graduated tumbler and minim measure, neatly packed in a leather case, and sold, at a small cost, by Maw & Son, of Aldersgate Street. A chapter of the book is devoted to the main features of the more common infectious diseases, always an anxious department of nurses' work, and one in which their services are often invaluable. The measures recommended to prevent the extension of these ailments in a household are clear and concise (why should they be put in small type?), although, to prevent accidents, we always deem it desirable to limit the employment of disinfectants in the sick-room to one, namely, carbolic acid solution, which, in typhoid fever especially, should always be added to the excreta before these are taken from the bedside. The lectures wind up with the usual homily on the domestic virtues on which every one appears bound to comment when addressing nurses. The possession of the natural gifts of tact, patience, punctuality, love of order, and cleanliness are no doubt highly desirable among men and women in all conditions of life; and nurses no more than their patients can be supposed to be exempt from the ordinary frailties of humanity.

Dr. Anderson's short course of lectures should prove specially serviceable to the class whom he is in the habit of addressing, and to nurses in general entering on medical work in hospitals, as they give a fair summary of the nature of the duties to which their attention must be practically directed. But if it be thought necessary that nurses should have a literature of their own, it would be infinitely preferable to have the material points connected with surgical and medical nursing condensed in a handy volume or text-book, in which considerable space should be devoted to those casualties and emergencies of daily life which are liable to occur in the experience of every one. Such a book would be likely to prove useful to others besides the professional nurse, and especially to mothers of families, who are for the most part their own nurses. Elementary works on physiology, anatomy, and hygiene abound, which every nurse, if so inclined, can peruse with profit; but, as we have previously indicated, the main portal to distinction and efficiency must rest with the manner in which she pursues her course of practical training in the hospital wards. At the same time, every endeavour on the part of medical men attached to hospitals to improve the curriculum of the nurse by oral instruction cannot fail to be hailed as an earnest of that better feeling which ought always to exist between those to whom the safe custody and treatment of the sick is more immediately entrusted.

J. C. STEELE, M.D.

ARTICLE 234.

A Descriptive Catalogue of the Anatomical and Pathological Museum of St. Bartholomew's Hospital. Published by order of the Governors. Vol. I. Pathology. London: J. & A. Churchill.

THIS catalogue has been prepared by Mr. F. S. Eve, who held the appointment of curator of the museum of St. Bartholomew's Hospital, when the treasurer and almoners decided upon its publication. The pathological series includes 3,400 specimens in spirit, or mounted in the dry state, 300 calculi, 186 microscopic specimens, 224 casts and models, and 600 drawings, all described in this one volume; and

admirably convenient arrangement, especially as it has been managed without any sacrifice of necessary information. The book itself is handsomely, though not strongly bound, and very well printed; the specimens are numbered uninterruptedly from first to last, and not re-numbered from the unit at the commencement of every series. The cross references under the headings of the series are very complete, and the descriptions of the specimens are carefully written, so that the catalogue, an absolute necessity to a visitor at St. Bartholomew's Hospital who would reap the full advantages of study in the museum, will also be of high value to pathologists who live too far from West Smithfield to be able to search the treasures of the museum within a convenient space of time, but who require a book of reference for pathological information.

ALBAN DORAN.

ARTICLE 235.

Copy of the Report from the Select Committee of the House of Commons on the Contagious Diseases Acts, &c. Harrison & Sons. 1882.

THIS pamphlet, which is published by the Association for Promoting the Extension of the Contagious Diseases Acts, contains, in addition to a copy of the above-mentioned Report, memorials to the Admiralty from inhabitants of Portsmouth and Devonport in favour of the Acts. The Select Committee was appointed in 1879, and between that time and 1882 held sixty-eight sittings, and examined seventy-one witnesses. The result of this prolonged inquiry, as set forth in the Report, is to prove conclusively that the Acts, even in their present limited sphere of operation, have been eminently successful, both from a hygienic and a moral point of view. This being the case, it is to be regretted that the Committee decided only to recommend the maintenance of the Acts in their present form, on the ground that the public opinion of a part of the community is unprepared for their extension. We strongly recommend a careful study of the pamphlet to all who take an interest in the subject of contagious diseases and their prevention.

ARTHUR COOPER.

ARTICLE 236.

A Text-Book of Pathological Anatomy and Pathogenesis. By ERNST ZIEGLER, Professor of Pathological Anatomy in the University of Tübingen. Translated and edited for English Students by DONALD MACALISTER, M.A., M.B., Member of the Royal College of Physicians, Fellow and Medical Lecturer of St. John's College, Cambridge. Part I.—General Pathological Anatomy. London: Macmillan & Co. 1883.

THIS elementary work supplies a great want. We do not refer to the more prominent features of pathology already condensed and presented to the student in a form suitable for study, in the works of Dr. Green and other British writers. It is rather in the large amount of newer matter which it contains that this new publication excels its predecessors. By newer matter we of course imply, not the results of original research, but material not hitherto included in a text-book. The entire arrangement of the contents is also in accordance with new ideas rather than with precedent. The first section treats of malformations and monstrosities; the second of anomalies in the distribution of the blood and of the lymph; the third of retrogressive disturbances of nutrition; the fourth of progressive or formative disturbances of nutrition; the fifth of inflammation

and inflammatory growths; the sixth of tumours; and the seventh of parasites. Little need be said concerning the third, fourth, fifth, and sixth sections; they treat of subjects well-known to the reader of pathological text-books, and are written in accordance with the latest researches, so as to be well up to their time. The chapter on tumours is ever held as the crucial test of a new work on pathology, according to the ideas of the amateur critic, who takes up a new work of this class at a medical bookseller's and 'makes' at once for the sarcomata and carcinomata, just as the Custom House officer is generally more particular about some one parcel than about the rest of a traveller's luggage. Searching in this work after such an example, we find that the tumour department is worthy of the most favourable criticism. We wish it were not deemed necessary to introduce terms like Rhabdomyoma, Leiomyoma, or Chloroma to the student; and we are of opinion that the portion of the section which treats of 'sarcomata of peculiar types' is rather suited for a work of reference than for a student's text-book. The part referring to cancer is condensed and simplified as well as can possibly be expected, when the great complexity of the subject is remembered.

The section on monsters will prove very useful to the student. A little more might have been said concerning malformations like cleft-palate and ectopia vesicae, but more is promised in a coming volume relating to special organs. The second section contains some useful elementary knowledge regarding hæmophilia, lymphorrhagia, œdema, &c.

By far the most valuable part of the work is the section on parasites. The chapters on intestinal worms and on moulds are very satisfactory, but Chapter XXX. is a truly admirable elementary summary of the natural history and pathological influences of the Bacteria—the first simple, yet complete, account of the Schizomycetes that is to be found in a student's text-book, an account likewise acceptable for reference to every one who is interested in the great antiseptic theory. The surgeon practically concerned in Listerism cannot, at one bound, be possessed of the advanced knowledge of a Sanderson, a Bastian, a Lister, or a Watson Cheyne. To comprehend the words of these authorities he must first study the subject in an elementary form. This requirement is fully supplied, for the first time, by Drs. Ziegler and MacAlister. It is highly advisable that the surgeon should be clear about the distinctions between the spherobacteria (*micrococcus* and *sarcina*); the microbacteria (*bacterium*); the desmobacteria or filobacteria (*bacillus*); and the spirobacteria (*spirillum* and *spirochaeta*). At a glance the reader can learn which is which—and without such knowledge what is the use of reading or listening to speeches and discussions by learned experts? The following passage will also clear up much confusion in the minds of many who are uncertain as to what terms are synonymous, and what imply different groups or species. 'The Schizomycetes have been very variously named by different authors. Pasteur speaks of them as *végétaux cryptogames* ou *microscopiques*, *animalcules*, *champignons*, *infusoires*, *torulacées*, *bactéries*, *vibri-niens*, *monules*, *mycodermes*. In Germany the terms *monaden*, *vibrionen*, *mikrozyma*, and (by Klebs) *mikrospora* and *monadine* have been used. Billroth introduced the term *coccobacteria*. In England we have corresponding terms, with others like *monads*, *zymes*, *microzymes* (Sanderson), *microphytes*, &c.'

We may add *germs, micro-organisms, microbes*, and the German word *pilz*, pressed, like *champignon*, from the ranks of its general signification into this special service. It is highly advisable that the general medical public should bear in mind that all the above terms have been used to express the same thing, and are so employed in discussions on fermentation, ovariotomy statistics, and other matters within the scope of the great antiseptic theory. The Arab poets, in the palmy days of the caliphs, used to boast that their language possessed five hundred synonyms to express the word 'lion,' and one thousand to signify 'a sword.' 'Bacterienkunst,' as it is sometimes termed in Germany, seems to resemble Arabic in this particular, only science is not poetry, and in the former a multiplicity of synonyms is a pure nuisance. The confusion which they have caused may be remedied by a careful perusal of the thirtieth chapter of Dr. Ziegler and MacAlister's valuable text-book.

— ALEAN DORAN.

ARTICLE 237.

The Contagiousness of Pulmonary Consumption and its Antiseptic Treatment. By J. BURNEY YEO, M.D., &c. Pp. 124. London: J. & A. Churchill.

IN these lectures the present aspect of consumption, in the light of the recent discoveries of Koch, is ably and lucidly considered. Dr. Yeo has no hesitation in affirming upon evidence which he brings in outline before his readers, that tubercle is an infective malady, and that its communicability is due to a specific organism, the tubercle-bacillus of Koch. Upon the question whether pulmonary consumption be a contagious disease, he withholds a complete answer as being as yet not justified by the facts in evidence. Dr. Yeo admits, however, the probability of the disease being contagious under certain conditions. But what these conditions are, must be cleared up by repeated investigations and experiments on animals. We think Dr. Yeo's suggestion a very good one, that the matter should be referred to the Collective Investigation Committee of the British Medical Association; and this, we are glad to hear, has been done. Having discussed the contagiousness of phthisis, Dr. Yeo occupies his second lecture with its antiseptic treatment by inhalations and residence in aseptic air. He gives exact directions for the use of such inhalations, and in an appendix he has collected some valuable notes on the principal antiseptic substances used in the treatment of phthisis. Dr. Yeo's lectures have so recently appeared in the pages of a contemporary, that we need not refer to them at greater length here. In their present form, however, with several appendices and added notes bearing upon the subject, the original lectures are much increased in usefulness and value. R. D. P.

ARTICLE 238.

The Germ-Theory of Phthisis Verified and Illustrated by the Increase of Phthisis in Victoria. By WILLIAM THOMSON, F.R.C.S. Pp. 95. Melbourne: Sands & McDougall. 1882.

IN reading this treatise, much allowance must be made for the author's sensitiveness to local and, it would appear, harsh and ungenerous criticism of former works, which has unfortunately led him to adopt a style of writing most repellent and tedious to busy and impartial readers. A man who has the spirit of earnest and fearless inquiry which is mani-

fest in the matter of these pages, might well afford to take advantage of what was fair in criticism and to ignore all that was unworthy.

Mr. Thomson seems to have been stimulated to his search after the cause of phthisis by the debate on 'Tubercle,' which took place at the Pathological Society of London in 1873, which debate he characterises as 'grand,' but does not regard as having served any other useful purpose. Three years later (July 1876) he published a pamphlet on the 'History, Chemistry, and Pathogeny of Tubercle,' expressing most definite views as to the parasitic nature of tubercle; views which, recapitulated in the present work (p. 33), are certainly in accord with the advanced teaching of the present day. In 1876 the author defined the giant-cells of tubercle as being epithelial cells fused together within the alveoli under the morbid influence of the cause of tubercular disease; and in the giant-cells he (with others) found microzymes, which he then looked upon as the *materies morbi* of the disease. Mr. Thomson, if we rightly gather his meaning, conceived (1) that the microzymes, in process of their own nutrition, absorbed nitrogen from the nascent epithelium of the alveoli, thus devitalising these cells, and leaving them to undergo such further changes as the chemical affinities of their elements might determine: (2) that fresh infiltration or 'swarming' of the parasites into the pulmonary tissue led to secondary changes and to the febrile phenomena of phthisis: (3) that the parasitic microzymes escaped with the breath and sputa of phthisical patients, and becoming inhaled, particularly in the form of dust containing dried elements of sputa, communicated the disease to other people: (4) that the disease phthisis had been imported into Australia by invalids from Europe: (5) that on the above grounds antiseptic inhalations were found useful, and an explanation was found 'how the antiseptic becomes directly curative of phthisis by arresting the parasitic cause of destruction.' Now short of the actual demonstration by colour-test and cultivation of a particular bacillus, to whose pranks in our organism one in seven† of us is alleged to succumb, Mr. Thomson may feel just pride in having anticipated by six years what is now likely to become, for a time at least, current doctrine. The statistical labours of Mr. Thomson have shown that the mortality from phthisis in Victoria is greatly on the increase, viz., from 7.9 per 10,000 living between the ages of 15 and 25 in 1871 to 9.9 per 10,000 living between the same ages in 1881, or, taking all ages, from 11.49 per 10,000 in 1871 to 13.90 in 1881 (see tables, pp. 22 and 26). Mr. Thomson is careful to point out that this mortality is not to be accounted for by any influx of dying visitors to the colony, but is largely due to an increasing death rate amongst Victoria-born persons. Thoroughly imbued with the belief that phthisis is a specific poison-disease, Mr. Thomson regards 'all idea about climate conferring an immunity from the disease as the most pernicious doctrine that could be inculcated.' He maintains that the disease is never of climatic origin; nor is it due to dampness of soil or depressing circumstances of life. Thus he regards the prevalence of phthisis amongst servant girls as due solely to the inhalation of the germ-laden dust of the bedrooms they have to sweep out. The well-known increase in the susceptibility to phthisis at the age of puberty is attributed by

* Abstract of former paper given at p. 33; also evidence given before Board of Inquiry referred to in Appendix.
† Koch, *Berl. Klin. Wochenschr.*, Apr. 1882.

the author to the increase in the capacity of the air-vesicles, and widening of the openings of the ultimate air-tubes into them, that take place at this period of development, which allow more ready access of the bacilli. Hereditary influence means early or persistent exposure to the contagion. Sea-voyages may be useful in the treatment of phthisical maladies, not through their influence upon the general health, but so far as they subject the patient to the continued inhalation of a saline and slightly iodised air—an air unfavourable to the development of the parasites.

When we come to the cases quoted by Mr. Thomson we are certainly disappointed at the inadequate and hearsay nature of the evidence adduced. If a man get phthisis in a manner comparable to that in which he acquires lead-poisoning or typhoid or scarlet fever, then abundance of clear evidence should be forthcoming; and this evidence is yet required before we can accept all the deductions that have been drawn from the discovery of the tubercle-bacillus. More details would have been very welcome (and doubtless they might have been supplied) respecting the 1,400 deaths that have occurred at the Melbourne Hospital from phthisis in fourteen years, and in support of the statement that 'many hundreds of these deaths occurred in domestic servants, mostly of previously healthy working girls employed in cleaning the bedrooms.' It is not enough merely to state that the girls were so employed; a thorough and impartial inquiry should be made into all the circumstances attendant upon a mortality so astonishing and melancholy.

We think Mr. Thomson's work of much value as a contribution to one of the great questions of the day in pathology. Those who are wise enough to act up to every possibility whilst keeping their judgment calm, cannot fail to be strengthened in their preventive and therapeutical resources by a careful consideration of Mr. Thomson's work, provided they will not neglect the other causes of consumption which he disregards.

R. D. P.

ARTICLE 239.

The Annual Report of the Supervising Surgeon-General of the Marine Hospital Service of the United States for the Financial Year 1882.

THE Marine Hospital Service of the United States may be designated a great and good institution. Sailors above every class endure suffering patiently, and are less likely to impose upon any organisation for the relief of real and deserving necessity; and we find, from the excellent report of the Surgeon-General, Dr. J. B. Hamilton, that during the year ending June 30, 1882, no fewer than 36,184 persons have been afforded relief and medical treatment. Or, to show the results in another way, it is represented that 'since 1868 232,366 seamen have received relief in the hospitals and dispensaries,' and that 'no American sailor, if he apply, in any port of the United States, need fail of obtaining medical attention,' and in nearly every instance at the small ports, where 'contract' surgeons are appointed, the attendance is the best attainable at the port.

By the present method of appointment the medical officers enter the service as assistant surgeons after a rigid examination by a medical board. The examinations are free to all medical graduates from regularly chartered medical colleges, subject to the age qualification of between 21 and 30 years inclusive. Those passing the highest grade are first

appointed, and the remaining successful candidates in the order of merit; after three years' service, and another successful examination, appointed passed assistant surgeons; then appointed surgeons, as vacancies occur, by seniority after examination.

Besides the treatment of sick and hurt seamen above alluded to, all the medical examinations for the Revenue Marine Life-saving and Lighthouse Services are made by officers of the Marine Hospital Service. It is interesting to know, also, that no less than 7,254 pilots were examined for colour blindness in 1880 and 1881, of whom 180 were colour blind, and these examinations were without cost to the vessels or pilots.

In two instructive cases given to show the value of Holmgren's test, red and green were confounded, the two colours employed for signal lights. In passing, it might be remarked that blue and red would be much less likely to be mistaken the one for the other, a fact well worthy of consideration.

In the section on the 'Hygiene of the Merchant Marine,' it is stated that 'six cases of scurvy were admitted to the Contract Hospital at Astoria, Oregon,' and it was found, on inquiry, that 'no lime-juice was issued until the scurvy broke out, which was from 100 to 103 days after the vessel left the port of New York, and that no fresh meats were issued after the first day out.'

The occurrence of an outbreak of small-pox is said to have increased the expense of the service during the past year, and caused much trouble on account of the complicated sanitary regulations of certain ports. The total number of cases was 155, of whom 62 died. The establishment of a 'pest-house' at each hospital station will no doubt be soon carried out.

The misery, scarcely avoidable neglect, mismanagement, and bad consequences that must have existed prior to the inauguration of the Marine Hospital Service, may be more easily imagined than described. But, like many good things, it has its opponents, who more especially object to the tax levied for its support, and if their advice were taken the former unhappy state of affairs would soon be brought back again, and still require the application of some remedy. While the needs of the seamen of the U.S. Navy both in health and sickness are amply provided for, it is only just to accord a helping hand to the merchant marine; to legislate for it; to raise the standard of health of its *personnel*; to give succour to the sick, and those in circumstances of distress either by disaster at sea, poverty, or the disabilities of declining years after a life of toil and hardship. All these humane objects are espoused by the Marine Hospital Service, though its more especial mission is medical. Indeed, the conditions under which it originated were very similar to those that gave birth to the so-called 'Chatham Chest' in our own country, only that the further history of the latter is more complicated and much involved in official mystery.

From very early times, immediately after every great naval engagement, the tokens of war were everywhere to be seen in the pitiable case of the sick and wounded sent home from the scene of action, and but very inefficient aid was afforded by the State for their relief. Under these circumstances we are told that, in the year 1588, 'the Lord High Admiral and the principal officers of the navy, divers well-disposed masters, shipwrights, mariners, and seafaring men,' founded 'a perpetual relief for the hurt and maimed in the service of the Queen and

her heirs for ever. They voluntarily gave and consented to have defalcated from their wages, of all receiving 10s. a month or more, the sum of 6d. a month; of every grommet receiving 7s. 6d. a month, 4d. a month; and of every boy at 5s. a month, 3d. a month: such defalcation to be employed for ever towards the relief and maintenance of such hurt and maimed mariners, ships' carpenters, and seamen of the navy, or in any ship or vessel serving the State, either at sea or in harbour.* The pensions to the wounded designed from the Chest were originally intended to supplement, not to supersede, the State gratuities to wounded and worn-out seamen, and the out-pensions of Greenwich, which were established in 1763, were quite independent of the Chest, but in the year 1814 the funds of the latter were amalgamated with those of the former, and so ended the ancient institution of the Chatham Chest, the principal having then reached 1,355,400*l.*, a sum that would be far in excess of the most liberal expenditure in accordance with the utmost wishes of its benevolent founders. The subsequent history of the Greenwich Hospital, and the manner in which the conjoint funds above noticed have been appropriated, need no special mention here.*

The case so far is merely adduced to show that under proper advice and good management a sinking fund might be established by the merchant marine itself that would be sufficient in the lapse of a little time to sustain a system like the Marine Hospital Service, but emancipated from those restraints, necessary perhaps at present, but which must, nevertheless, withhold the wanted relief from many worthy cases that might otherwise cheer the heart of both recipient and administrator.

The funds of the service are derived from a tax of 40 cents. per month for each seaman, but only while his vessel is employed, a period supposed on the average not to exceed seven months in the year. So that, in point of fact, the annual amount defalcated is little more than half that which would naturally be represented by the Opposition.

The disbursements made from this revenue have very properly been placed under certain legal restrictions, on the principle that 'the coat must be cut according to the cloth,' and to obviate waste or misappropriation. But it has been shown that not only is the expenditure somewhat in excess of the means intended to meet it, but that in keeping with this necessitated economy the application of at least some deserving cases not quite fulfilling the conditions must needs be rejected. In Canada a similar system is in operation, but the tax is levied on the tonnage of the vessels and not on the seamen themselves per head, as in the United States. The amount, however, collected in this way has not yet proved equal to the expenditure, the deficit being made up by an annual appropriation made by Parliament.

There are eight relief districts in the United States, viz. 1, North Atlantic; 2, Middle Atlantic; 3, South Atlantic; 4, the Gulf; 5, Ohio; 6, Mississippi; 7, the Great Lakes; and 8, the Pacific.

Provision is also made in intermediate places for the reception of patients into civil hospitals at stated rates, and when possible they are attended by medical officers of the Marine Hospital Service. From all the above stations nosological returns are

sent to the supervising surgeon-general, and they make up a considerable portion of the report with a list of surgical operations performed during the period. Next follow selected cases from hospital practice, including—

1. Seventeen cases of rheumatic effusion in joints successfully treated by aspiration. Reported by Surgeon Henry W. Sawtelle.

2. Notes on the Heatonian method for the permanent cure of hernia. Reported by Passed Assistant-Surgeon W. H. Heath. Of seventeen cases, twelve were cured, two improved, and one was unsuccessful, the accidental contact of the irritant fluid in the areolar tissue of the cord causing abscess.

3. Stab wound, followed by artificial anus. Operation and recovery reported by Assistant-Surgeon Henry R. Carter.

4. Aneurismal varix, involving the external iliac and femoral vessels. Ligation of the external iliac artery unsuccessful. A very instructive paper, with a woodcut of the parts concerned. By Assistant-Surgeon Charles E. Banks.

5. Cases of aneurism. (1) Ligation of the external iliac successful. Reported by Acting Assistant-Surgeon C. A. Wheaton; (2) Ligation of the femoral successful. Assistant-Surgeon Charles E. Banks; (3) Traumatic popliteal aneurism compression; gangrene, amputation. Surgeon C. S. D. Tessenden.

6. Epithelial cancer; removal; speedy recurrence and death. Surgeon Truman W. Miller.

MEDICAL CASES.

1. Case of Molluscum fibrosum (with a microphotographic illustration). Acting Assistant-Surgeon A. C. Hamlin.

2. Small-pox—three cases, one of which had been previously vaccinated. Acting Assistant-Surgeon W. D. Stewart. Pp. 177 to 260 contain a record of fatal cases with autopsies of a varied and interesting character, and the report closes with an appendix, including a paper on 'The Hygiene of Steamboats on the Western Rivers,' vigorously written by Surgeon Walter Wyman, who speaks boldly in the interests of the man of colour against the heartlessness of his oppressors, and finally remarks, 'that the man who ships as ordinary seaman on a whaling vessel, bound for a three years' cruise in the Arctic seas, stands a greater chance of returning with his life and health than does he who labours for one or two cold winter seasons upon the deck of an Ohio river stern-wheel passenger steamboat.'

We have been much interested in the perusal of the report which reflects great credit on Surgeon-General Hamilton and the medical officers of the Marine Hospital Service under his supervision.

J.R.M.

ARTICLE 240.

A Manual of Hypodermatic Medication. The Treatment of Diseases by the Hypodermatic Method. By ROBERTS BARTHOLOW, M.A., M.D., LL.D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College of Philadelphia, &c. Fourth edition, revised and enlarged. Philadelphia: J. B. Lippincott & Co. 1882.

THIS work is of such value to all engaged in practice that it is to be regretted that it is not more generally known in this country. The substitution of the term 'hypodermatic' for the familiar word 'hypodermic'

* For a more definite and precise account of the whole question the reader is referred to a lecture delivered before the British Medical Society at Plymouth, in August 1871, by Sir W. R. E. Smart, K.C.B., I.H.R.N., reported in the *Brit. Med. Jour.*, Oct. 28, 1871.

will probably not meet with general approval, but it is stated that it has received the sanction of some of our best authorities. It is, in any case, consistent with etymology. The opening chapter is devoted to a history of the subcutaneous method, and the author deals at some length with the question of the priority of the discovery. He states unhesitatingly that the credit is due to Dr. Alexander Wood of Edinburgh, who established his right to be regarded as the discoverer of the hypodermic method by using the syringe for injecting morphia, and by the publication of his experiments and their results. It was, however, reserved for Mr. Charles Hunter to demonstrate the important fact that the application of the injection to the painful spot was unnecessary, and that equally good effects follow its introduction at a different part. The author deals at some length with the form in which the drug is to be employed, and with the various instruments which have been recommended for its introduction. It is obvious that the medicine must be in perfect solution, for solid particles would not be absorbed and would act as irritants. The solution must be free from dirt and foreign matter, and should be neutral, or, at all events, should not present a decidedly acid or alkaline reaction. It must not be too concentrated, and, as water is quite harmless, the quantity of fluid injected is within certain limits a matter of no importance. It is found, too, that in preparing the solution distilled water is not essential, and that it is not even better than ordinary river, spring, or well water free from visible impurities. The objection to distilled water is that it rapidly becomes cloudy on exposure to the air. For the purpose of preparing extemporaneous solutions, powders of a given weight may be put up in advance, but it is not found practicable to accurately subdivide alkaloids given in hundredths of a grain. The author speaks unfavourably of the gelatine discs and tablets frequently recommended. He finds that they are slow to dissolve, and that the absorption of the gelatine is imperfect, so that local irritation is not uncommon. He much prefers the compressed pellets, or hypodermic tablets, prepared by Wyeth of Philadelphia, and considers that they are preferable in every respect. The objections to permanent solutions are many, and, even when most carefully prepared, they deteriorate by keeping. Their great enemy is the penicillium, which grows partly at the expense of the alkaloid, so that the solution rapidly loses strength. A solution long kept, although it may not be turbid, will when injected often cause an indurated and painful swelling, which remains for months, and may eventually suppurate. The addition of certain antiseptics to the aqueous solutions of alkaloids is an efficient method of preventing change. A minim of carbolic acid to the drachm of solution is not enough to act injuriously, and will maintain an antiseptic action for many months. Two to four grains of salicylic acid to the ounce will also prove effective, but it increases the irritation and smarting which attend the injection. Resorcin may be substituted for salicylic acid, as it is almost free from irritating properties. It is better, however, to make extemporaneous solutions than to rely on any formula, however well adapted it may appear to be to the purpose in view.

The instruments used for hypodermic medication vary much in appearance. Some are constructed of glass, others of celluloid or hard rubber, and others, again, of German silver, pure silver, or gold. The

needle should be as small as possible, and should be lancet-shaped, without any groove or depression. It should be made of gold, with an iridium point. A constant complaint is that the piston becomes dry and will not work properly, but this may be obviated by having a small cap to fit the end of the barrel when not in use. There is one other point to which attention is very properly called, and that is, that needles which have been used for infected persons should not be used again.

The author gives the following list of

REMEDIES ADMINISTERED BY THE HYPODERMATIC METHOD.

Source. Preparation for subcutaneous use.

OPIUM	Morphia and its salts; codeia and its salts; narcein; apomorphia.
BELLADONNA	Atropia and its salts; homatropia.
DUBOISIA	Duboisin and its salts.
HYOSCYNAMUS	Hyoscyamia and its salts.
ALCOHOL	Whiskey; brandy; distilled alcohol.
CHLORAL	Chloral-hydrate.
CHLOROFORM	Chloroform.
ETHER	Ether.
NUX VOMICA	Strychnia and its salts.
ERGOT	Aqueous extract (ergotin); sclerotic acid; ergotinin, fluid extract.
USTILAGO MAIDIS	Fluid extract.
DIGITALIS	Digitalin and its salts; tincture of digitalis.
CONIUM	Conia and its salts; conia and morphia.
TABACUM	Nicotin and its salts.
ACONITE	Aconitia and its salts; napellin.
PHYSOSTIGMA	Extract; eserine and its salts.
CURARA	Curara; curarin.
HYDROCYANIC ACID	Hydrocyanic acid.
COLCHICUM	Colchicia and its salts.
PILOCARPUS	Pilocarpin and its salts.
MUSCARIA	Muscarin and its salts.
CAFFEA	Caffein and its salts.
CINCHONA	Quinia and its salts.
CARBOLIC ACID	Carbolic acid.
RESORCIN	Resorcin.
ARSENIC	Liquor potassii arsenitis.
MERCURY	Corrosive chloride of mercury; peptonate of mercury.
SILVER	Nitrate of silver.
IODINE	Lugol's solution; tincture of iodine.
IRON	Ferrum dialysatum; liquor ferri sulphatis.
WATER	Aquapuncture.
PEPSIN	Glycerite of pepsin.
AMMONIA	Aqua ammoniac.
SALINES	Salts of sodium and potassium.

This is by far the most complete list we have seen. It is true caustic potash and permanganate of potash might have been mentioned, for both are used hypodermically in the treatment of snake-bite.

An account is given of the action and uses of each of the remedial agents employed hypodermatically. Under the head of Morphia the author says: 'There is no general agreement as to the salt of morphia which is best; but, as the sulphate is most

soluble, and when neutral is not more irritating than any other salt, it should be preferred.' He recommends Magendie's formula, containing sixteen grains of the sulphate to an ounce of water. A detailed account is given of the use of hypodermic injections of morphia in those diseases in which its employment is indicated, and there is an useful chapter on the opium or morphia habit and its treatment.

Dr. Bartholow discusses at some length the extraordinary discrepancies in the statements of various authorities as to the quantity of atropia which may be used subcutaneously. He considers that gr. $\frac{1}{43}$ is the maximum dose which should be given in an ordinary case, but he adds that great differences are met with in susceptibility to atropia influence: for example, children bear a proportionately larger amount than adults, women are more susceptible than men, and persons of light complexion are more easily influenced than those who are dark. A good account is given of the use of hypodermic injections of atropia in locomotor ataxy, chronic meningitis, delirium tremens, neuralgia, sciatica, tetanus and hydrophobia, epilepsy, asthma, sea-sickness, colic, cholera, spermatorrhœa, and a variety of diseases, but, curiously enough, no mention is made of its employment as a remedy for the night-sweating of phthisis. Homatropia receives due attention, and the author considers that it deserves a further trial in the treatment of various diseases. Under the head of Duboisia, it is stated that it may be substituted for atropia in all conditions in which the latter is now employed. The account of pilocarpin is not so full as we should have liked, but we quite understand that it is difficult to treat every drug with equal completeness. The dose is said to be from gr. $\frac{1}{4}$ to $\frac{1}{2}$, and we are told that it is rarely necessary to exceed a quarter of a grain. We must admit that we usually fail to get the full physiological action from the quarter grain. Pilocarpin undoubtedly varies much in purity, and Dr. Bartholow must have been fortunate enough to secure a specimen of the alkaloid containing little or no jaborin. Speaking of apomorphia, he says the solution rapidly changes, becoming greenish and 'unfit for use,' and recommends that it should be kept in the form of a powder and prepared as required. It is true the solution assumes a green colour very quickly, even in a few hours, but that does not render it unfit for use. We have now a 1 in 50 solution of hydrochlorate of apomorphia prepared more than a year ago, and it is as active as it was when first made.

We have given a very brief account of the contents of this valuable work, and can only say in conclusion that it will well repay careful study.

WILLIAM MURRELL, M.D.

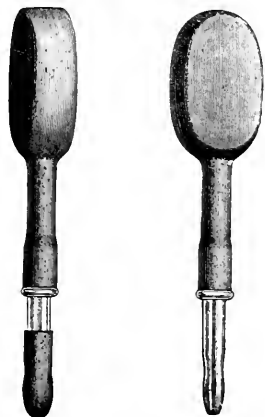
NEW INVENTIONS.

ARTICLE 241.

MR. BALMANNO SQUIRE'S URETHRAL SYRINGE.

THE advantages of this syringe are as follows. It is easily worked with one hand; the other hand being left free to close the mouth of the urethra around the nozzle. It can be completely emptied (by pressing the sides together), and completely filled (by relaxing the pressure). Moreover, its fluid capacity is precisely that which is necessary to distend fully, but not unduly, the male urethra with

fluid. Consequently, no air-bubbles can be injected by it into the urethra, and no fluid into the bladder. Its flat shape and small size enable it to be carried easily in the waistcoat pocket. A supply of liquid, enough for one injection, may be carried in the



syringe. The nozzle is provided with a rubber cap which takes off and on; so that the syringe, filled with a supply of solution, may be carried safely in the waistcoat pocket. The manufacturers of this instrument are Messrs. Ingram & Co.

ARTICLE 242.

AN IMPROVED MEANS OF OBLIQUE ILLUMINATION—A CORNEAL CONDENSER.

DR. E. G. LORING, of New York, writes in the *New York Medical Record* of Nov. 25, 1882, as follows.

Since the introduction of the elevated railroads, the frequency with which foreign bodies are found impacted in the cornea has increased so much that hardly a day passes that the ophthalmic surgeon is not called upon to remove one or more of these painful and oftentimes dangerous particles. This may occur not only at any hour of the day, but of the night as well, and in this latter case it is extremely difficult, if not impossible, for the surgeon, without the aid of an assistant to hold a condensing lens, to accomplish his object. This difficulty has, it is true, been obviated in a great measure by an ingenious contrivance described by Dr. Noyes, which consists of a lens so mounted that it can be worn by means of a spring clamp on the end of the first finger on the left hand of the operator. The amount of movement, however, is small, while to focus the eye successfully with the index finger so encumbered, and at the same time keep the cornea illuminated, is a difficult operation, and requires considerable practice and skill.

Mr. J. E. Adams, of London, described in the *Lancet*, Feb. 7, 1880, an useful and ingenious little instrument, which consists of two lenses attached to a head-band, the plate of which is worn in the centre of the patient's forehead.

The modification of that idea consists, as shown in the drawing, of an arm, broken at the various

points by ball-and-socket joints, so as to give a perfectly free adjustment to the lens in any direction, and at any distance up to the extreme length of the arm. This leaves both hands of the surgeon unencumbered, permits the use of fixation forceps if necessary, and does away with the necessity of an assistant to hold the lens.

The arm is attached to an elastic head-band, precisely like the head-band of an aural or laryngoscopic mirror. When in use, the band is slipped over the head of the patient in such a way that the hard rubber support comes at the temporal region and on the side of the eye to be illuminated, the lens then being swung into the position desired. By having the plate at the temporal region instead of in the centre of the forehead, as in Mr. Adams' instrument, and the lamp well at the side instead of directly in front, we get rid of annoying reflections of the lens in the cornea, and avoid the irritating effects of the light from a strong condensing lens thrown directly through the pupil upon the patient's retina. If the lens be so arranged as to be a little within or a little without its focal length from the eye, the section of the cone of light is large enough to keep the cornea covered, even if the eye make considerable excursions; while, as the lens is attached to the

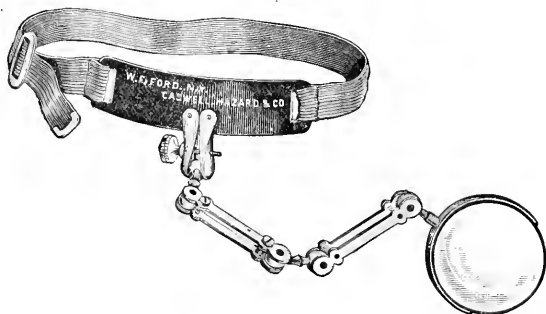
at night or whenever the light is poor. When, however, the light is sufficient, and only an increased enlargement is desired, the surgeon, by wearing the band on his own forehead and extending the arm to its utmost, can obtain a large amount of magnifying power, while by slight movements of the head he can successively inspect and keep in front any portion of the anterior surface of the eye or lid.

The instrument can be obtained of W. F. Ford, New York, and A. Keune, New Haven R. R. Building, Franklin Street, New York.

ARTICLE 243.

A NEW ASPIRATOR.

PROFESSOR PICOT, of Bordeaux, has had constructed by M. Creuzan, surgical instrument-maker, of the same city, a new aspirator, which he invented to obviate the inconveniences of Dieulafoy's aspirator, and also the disadvantages created by the necessity of first making a vacuum in the flask of Potain's apparatus. The apparatus illustrated is of extreme simplicity, and is composed of an India-rubber flask, the pressure of which, by means of a system of special valves, allows the construction of a pump, which is at once an aspirator and a force-pump. On this



patient's head, this latter can be moved to a considerable degree without displacing the illumination from the eye. I have found it of great service in operating upon delicate membranes in the pupillary space, as it gives a much steadier illumination, and one which is more easily controlled than when an assistant holds the lens.

By removing the lens from the clip and supplying a mirror, the instrument, from the character of its joints and the mutability of its position, can then be used as a fixed ophthalmoscope for the upright image, and can thus be used in demonstrating the fundus to a class or in making a sketch of it without the observer being compelled to take up and lay aside the instrument at every look; or the upper half of the ordinary ophthalmoscope can be inserted instead of a simple mirror, and then any optical combination that the refraction of the observed eye may require can be obtained.

I have had a band made which carries two lenses, one on a shorter arm, which is then used as a magnifying lens, but the single one answers every purpose, and for ordinary occasions is the most convenient.

The instrument is also very useful in magnifying small hairs, thus rendering their detection and removal much easier, or in performing any operation

flask, as the illustration shows, there is fixed a glass receiver, into which the aspirated liquid is precipitated, and which allows the immediate verification of the nature of the fluid. Valves which guarantee the working of the apparatus are placed in the cylinders A and L. It was especially for puncture of the pleura that Professor Picot had constructed this apparatus, which has also the considerable advantage of not allowing the introduction of air into the pleural cavity or into any but the one punctured. It is obvious that this instrument will be found useful in all cases where the practitioner wishes to make an aspiration in a cavity containing liquid, and that it is practicable to use it to evacuate, protected from contact of the air and with all the power given by aspiration, effusions of the various serous cavities, the fluid of hydatid cysts, that of deep-seated abscesses, &c. Likewise the instrument, if reversed, becomes, instead of an aspirator, an excellent injector. It allows of washing-out as much at the surface of wounds as in the depth of the tissues or in normal or pathological cavities. Professor Picot states that he has used this instrument in his practice during three months for making a certain number of aspirating punctures of the pleura, in presence of his class. It has acted with the greatest ease and

regularity, and its action is so simple that the same person may, whilst keeping the trocar in place, work the instrument without any fatigue, and without being preoccupied with anything but to watch the effects produced on the patient by the evacuation of the pleuritic liquid. He therefore believes that, for the practitioner who cannot always command assistance on which he can rely, this instrument will be very valuable, since it allows working without any

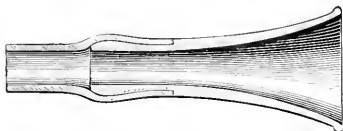
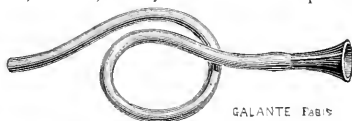


assistance, except the person whose business it is to hold the basin into which the aspirated liquid is received. In order to work this apparatus, whether it be intended to use it as an aspirator or as an injector, it suffices to direct the end provided with the glass reservoir in the direction of the liquid to be aspirated. In order to clean it, it is sufficient to pass a current of carbolised water through it and to wipe the valves.

ARTICLE 244.

A NEW HOLLOW FLEXIBLE STETHOSCOPE.

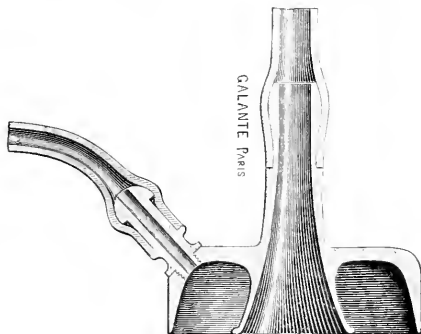
THE flexible stethoscope invented by Dr. Constantine Paul, of Paris, is fairly well known to the profes-



sion. It is composed of a vulcanised India-rubber tube 45 centimetres in length, which gives complete

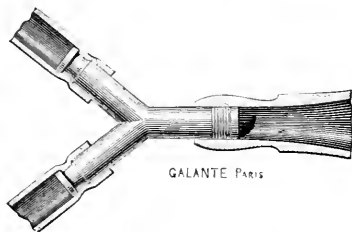


facility of action both to physician and to patient. The free end is intended to enter into contact with the



auditory canal; with the other is connected a bell-shaped ivory chest-piece, which the medical man

places over various points of the chest, whilst remaining upright without congesting the brain or tiring the loins. This arrangement allows lengthened auscultation, so as to hear well the rhythm of the heart. The following modifications have been made in this instrument by M. Emile Galante. A hollow circular case of a given capacity surrounds about two-thirds of the height of the chest-piece, of which the size and form have been carefully retained. To one point of the surface of the hollow case is connected a tube which terminates in a small India-rubber flask, which thus transforms it into an annular sucker



serving to fix the stethoscope. The stethoscope is arranged for uni-aural or binaural auscultation with the help of a metallic adjustment. In consequence of the exact adaptation of the chest-piece to the skin with an unvarying pressure, and of the suction-apparatus, which forms an additional hollow cavity, the sound which it is wished to hear assumes a remarkable intensity and clearness.

ARTICLE. 245.

MITCHELL AND MUIR'S CHARCOAL BISCUITS.

THE charcoal biscuits recently introduced by Messrs. Mitchell and Muir, of Aberdeen, form an admirable mode of administering this valuable remedy. They are wonderfully free from grittiness, and by the taste alone can hardly be distinguished from Osborne biscuits. They will prove of much value in the treatment of acidity, flatulence, and other disorders of the digestive organs. We have heard them praised as a remedy for piles.

MISCELLANY.

WEIGHT OF WOMEN'S CLOTHES.—In relation to rational dress the dress reformers have, we are glad to see, been advised to give attention to the absurd fashion now prevailing as regards women's dress, and especially at this time of the year, when, in addition to their ordinary clothes, ladies cover themselves with heavy mantles of fur, &c. Many women complain of feeling tired after a short walk, whilst they are really carrying a weight which would soon tire a strong man. Their waists are encircled with a belt or hoop, to which a load heavier than a felon's chains is attached, and the shoulders and chest are compressed by an additional burden. Breathing is laboriously performed, and the contents of the trunk and pelvis are thrust down with a force which if represented in pounds would occasion considerable surprise. It would be a matter of great interest if medical men would ask their female patients to ascertain pre-

cisely the total weight of the clothes they wear in-doors and out.

HOW TO HANG.—In a recent paper on this subject, Dr. E. M. Hammond, of New York, produces evidence that the common practice of jerking the body by the neck with a view to dislocation is wrong, useless, and barbarous. In hanging, death takes place either by asphyxia or by apoplexy, or by both. If the cord be loose or too high up on the neck, a little air may still reach the lungs, and life be prolonged till the slower death by apoplexy takes place. The object should be to produce immediate asphyxia, with a noose adjusted so as to close the windpipe at once. Usually there are both apoplexy and asphyxia. Dr. Hammond had himself partly strangled in a chair. A towel was passed round his neck and the ends twisted together by a medical friend, while another friend stood in front to watch the face and make necessary tests. As the twisting proceeded Dr. Hammond first noticed a sensation of warmth and tingling, which began with the feet and spread over the body; vision partly disappeared, but there was no appearance of coloured lights. The head felt as if it would burst, and there was a roaring in the ears; consciousness continued, and Dr. Hammond could tell his friend whether he suffered pain from the knife-thrusts being made into his hand. In one minute and twenty seconds from the commencement sensibility was abolished. In another experiment, sensibility ceased in fifty-five seconds. A knife-thrust, sufficient to draw blood, caused no sensation whatever. Dr. Hammond considers that the proper way to hang is to stand the criminal on the ground and adjust the noose carefully round the neck below the larynx; then raise him by pulling on the rope, which should pass over a pulley above, and he should be allowed to hang for thirty minutes. If he be let fall through a trap, or lifted suddenly from the ground, the noose is almost certain to be displaced, and death to be less sudden than it should be. The rope should be soft and flexible, so as to fit closely to the neck; probably one of cotton or flax would be preferable to the usual hempen cord. In hanging by the method indicated, sensibility would cease almost immediately after suspension, and much physical and mental suffering would be obviated. In the case of persons weighing under 150 lbs., it would be well to attach a weight to the feet to insure sufficient traction of the cord. Dr. Hammond notices the mistaken idea that dislocation of the neck causes instant death; in some cases even recovery has taken place. Even where death does occur, it is no more instantaneous than when asphyxia is accomplished, and there is no greater freedom from convulsions. Any convulsions observed in the other case may be regarded as no more evidence of pain than are the movements of a decapitated chicken.

THE INFLUENCE OF RAREFACTION UPON BLOOD-PRESSURE.—Dr. A. Fraenkel has read a paper before the Physiological Society of Berlin on certain experiments which he has made, in conjunction with Dr. Geppert, to determine the influence of a rarefied atmosphere upon the animal organism. In addition to the general phenomena and the behaviour of the gases of the blood in animals which breathe in a rarefied atmosphere, investigations were made as to the influence of rarefaction upon blood-pressure. The blood-pressure was read off upon a manometer, one arm of which communicated through the side of the box (in which the animal was kept exposed) with an artery of the animal, while the other arm was in communication with the general cavity of the box. When the atmospheric pressure sank to half the normal amount, the blood-pressure showed no change; when the pressure sank to a third of an atmosphere, a small rise took place in the blood-pressure. This rise, however, passed away during the sleep that occurred under the influence of this amount of rarefaction, and the pressure became normal again. When the air was still further rarefied till the pressure was as low as one-quarter of an atmosphere or less, the pulse became weak and small, the blood-pressure went down, and then, if normal quantities

of oxygen were not quickly restored, the heart stopped. The chief gain of the whole investigation was the definite determination of the influence of a rarefied atmosphere upon metastasis (Stoffwechsel), upon which question only few and contradictory data exist. The investigators agreed in general with M. Paul Bert in regarding the effect of a rarefied atmosphere as inducing a chemical change which was brought about by a diminished supply of oxygen. The amount of urea secreted in the twenty-four hours was taken as the measure of metastasis. During a lengthened period of observation on those days in which the animals thus experimented upon had the same amount of food, the quantity of urea secreted in the twenty-four hours remained constant. Nor was there any alteration in the amount of urea when they were exposed to variations of pressure down to half an atmosphere. On the diminution of the pressure to one-third of an atmosphere, at and under which pressure the amount of oxygen contained in the blood is markedly diminished and the animal falls into a deep sleep, there was—after this degree of rarefaction had lasted several hours—a very remarkable increase in the amount of urea. This increase did not occur till the next day in the case of animals which had been fed, whereas it occurred on the day of the experiment in the case of those animals which were kept hungry; but it lasted in all cases over a couple of days after the experiment. Dr. Fraenkel's belief is that the rarefaction influences metastasis by depriving the blood and the tissues of some of their necessary oxygen, and that this want of oxygen entails an excessive destruction of albumen; the constituents of which are in part deposited as fat, and in part are changed into urinary products. Besides the increased elimination of urea, fatty degeneration of tissues (e.g. of the heart) is observed when the system is in want of oxygen.

GIACOMINI'S PROCESS OF PRESERVING BRAINS.—Mr. A. W. M. Robson (in the *British Medical Journal*) recommends the following process for preserving brains. The fresh brain in its membranes is placed in a saturated solution of chloride of zinc, in which it floats, and must be turned over two or three times a day. After forty-eight hours, the membranes must be removed without taking the organ out of the fluid. Allow it to remain in this fluid until it ceases to absorb, as shown by its remaining at the same level, and not sinking. Then remove it, and plunge it in alcohol of commerce, where it must remain for a period of not less than twelve days, during which time the spirit should be changed two or three times. When removed from the alcohol it is to be placed in glycerine of commerce, to which 1 per cent. of carbolic acid may be added. At first it floats in the glycerine; but, as the spirit evaporates, and the glycerine penetrates it, it gradually sinks to the level of the surface of the fluid, when it may be removed, put aside to dry for a few days, and, lastly, coated with several layers of gum-elastic varnish, or marine glue diluted with a little alcohol.

OBESITY AND ITS TREATMENT.—Ebstein, of Wiesbaden, describes a new dietetic method for the relief of obesity. He does not believe in 'Bantingism,' and states that it produces inanition which may be injurious. Dr. Ebstein contends that a diet of albuminous and fatty matter tends to check deposit of fat, and that it is the sugars and starches which are to be left out in an anti-fat regimen. He gives bread, however, and green vegetables, peas and beans, but no potatoes. The addition of fat to the diet list has the advantage that it produces satiety sooner and the patient does not eat so much.

LANTERN FISH.—The latest submarine explorations made on board *Le Travailleur*, have brought to light an extremely curious fact which none of the scientists who have hitherto endeavoured to guess what might be the nature of life in the sombre depths of the ocean have ever thought of. These abysses are not only peopled by

foraminifera and infusoria, as has been supposed, but numerous species of fish analogous to those which inhabit the surface of the water are there found possessing very curious anatomical peculiarities and novel organs. These organs are transparent plates covered by the skin and filled with a liquid capable of becoming luminous under the influence of the cephalon. It hence results that these vertebrata which inhabit regions where the sun never penetrates, and where consequently eternal darkness reigns, possess a kind of dark lantern, which they can light at will. It should be added that one peculiarity has long been taken cognisance of, which is that a majority of the zoophytes which carpet the bottom of the sea are naturally phosphorescent.

A BLIND CAT.—An interesting account of a cat which became quite blind, rather suddenly, from cataract, when about four years old, is given by Mr. Hovey in the *Scientific American*. At first the cat would sit and mew most piteously; and when he tried to move about he met with all conceivable mishaps—ran against walls, fell down stairs, stumbled over sticks, &c. If placed on the top rail of a fence, he would traverse its whole length, seeking vainly for a safe place to jump off. On being called, he would run about in a bewildered way. Ere long, however, Dido (so-called, irrespectively of gender) showed a power of adaptation to altered conditions. He became able to run down stairs at full speed, turning into the hall after the last step. In this process he went to one side on the top step till he felt the balusters touch his whiskers, and by these he was guided. One by one he made each familiar path a study, noted the situation of each door, &c., and with such success that it often seemed as if sight had been restored; but if any unexpected obstacle were placed in his way he showed, by running against it, that he was still quite blind. Dido seems as eager for war as he formerly was, and he even goes abroad in quest of adventures. His value as a mouser does not seem to be in the least diminished. Put into a closet where rats were suspected, he was found in the morning mounting guard over a large rat he had killed. Dido's sense of smell is by no means acute; yet he uniformly chooses the shortest road home, without reference to the path he may have taken in leaving the house. Once, when the ground was thickly covered with snow, Mr. Hovey took Dido out a considerable distance, and, after making a number of turns to bewilder him, tossed him adrift and awaited results. The animal turned his head in various directions and mewed piteously; but, finding he was left to his own resources, he stood motionless for about a minute, and then, to the author's surprise, made his way directly through the untrodden snow to the house-door.

THE VALUE OF GOLD MEDALS.

A golden medal was voted to me
By a certain Royal Society.
It was not a thing whereto scoff,
For sixty guineas was the cost thereof.
On the one side the head of the King you might see,
And on the other was Mercury.
But I was scant of worldly riches,
And moreover the Mercury had no breeches.
So, thinking of honour and utility too,
And having modesty also in view,
I sold the medal—why should I not?
And with the money which for it I got
I purchased this silver coffee-pot;
Which I trust my son will preserve with care,
To be handed down from heir to heir.
These verses are engraven here
That the truth of the matter may appear,
And I hope the Society will be so wise
As in future to dress their Mercuries.

(Written by Southey, when on a Visit to Greta Hall.)

AN ASSUAGER OF THIRST.—Sir Joseph Fayrer, Medical Officer of the Secretary of State in India, has

reported his experience in the use of coca-leaves, chewed during mountain-climbing, as a means for preventing or relieving thirst. His experiment consisted in the distribution of about eighty grains of the leaf to each one of the four guides and porters who accompanied him. During the ten hours consumed by the excursion, no water and but a limited quantity of wine were consumed. They drank no tea nor coffee, nor did they use ice or snow. Nevertheless, the chewing of the coca appeared to furnish great relief from thirst, and to enable them to make the trip with comparative comfort.

POISONING BY STRYCHNINE.—A criminal case tried some time ago in Germany having shown the inadequacy of scientific notions as to strychnine poisoning and detection of the poison in putrefying bodies, four *savants*—viz., Dr. Ranke, a physiologist, and MM. Buchner, Gorup, Besanecz, and Wislizenus, chemists—have lately made a fresh experimental study of the subject. Seventeen dogs were caused each to swallow a pill of 0.05 gramme nitrate of strychnine. The salient features of the poisoning were these. The time between taking the poison and the first tetanic attack varied widely, from five minutes to eighty-three minutes; the average was eighteen. So did the time between taking the poison and death; the average was thirty-five minutes. On the other hand, the interval between the first symptoms and death varied little. It never reached half an hour, and the average was eleven minutes. Race and weight had no influence on these intervals. Immediately after death there was complete muscular resolution: rigidity set in in twenty-one minutes after death at the earliest, ninety-seven minutes at the latest; average fifty minutes. It began with the fore limbs. Its duration was the same as in other kinds of death; sixteen hours after death it was rapidly diminishing. The tetanic fits were few, two or three generally, and death always came suddenly during a fit. The fits lasted one minute on an average. Next as to search for the poison in bodies exhumed after 100, 130, 200, and 330 days. Using Stas's method (improved), the authors were unable to find strychnine, even where 0.1 gramme had been given to each dog, a fatal dose even to a man. But, even in the dogs longest buried, the presence of the poison might be assumed from the bitter taste of the product obtained. The physiological reaction is infinitely more delicate. The extracts were dissolved in cold water and injected under the skin of frogs, and in a few minutes these animals had violent tetanic spasms. The action was more pronounced the shorter the time the animal furnishing the extract had been buried. The nature of the ground, permeable or otherwise, where the dogs were buried, did not appear to influence the physiological reaction of the strychnine in the extract. The extracts from very putrefied bodies produced in the frogs a torpor, with weak and sluggish movements of the heart, which might retard and partly mask the action of the strychnine. A critic has suggested that those alkaloids, called ptomaines, found in dead bodies, might even in some cases exaggerate or simulate the action of strychnine. While this action of putrid matter is most conspicuous with extracts from the intestine, the action of strychnine is most pronounced with extracts from the liver and spleen. Professor Dragendorff has objected to the method the authors adopted to liberate the alkaloid—viz., agitation with ether, then with chloroform and amyl alcohol; and he has indicated a superior method, enabling to detect 0.000001 gramme of strychnine, while the physiological researches require at least 0.000003 gramme. Thus he considers chemical analysis the more delicate method.

A PRIZE FOR THE PREVENTION OF BLINDNESS.—The fifth international Congress of Hygiene, which will meet at The Hague in 1884, will award the prize of two thousand francs (80*l.* sterling) offered by the London Society for the Prevention of Blindness to the author of the best essay written in English, French, German, or Italian on the causes of blindness and the practical means for preventing it. Besides this prize the International

Society for the Improvement of the Condition of the Blind reserves to itself the right to award a second prize of one thousand francs (40*l.* sterling) or two prizes of five hundred francs (20*l.* sterling) each and a silver gilt medal with a diploma, should it see fit, to such of the essays as should, in the opinion of the international Jury for the principal prize, be deserving of it; the last-mentioned prizes will be distributed at the centenary festival of the first blind Institution founded by Itäiy, which will take place in Paris in 1884. The fourth International Congress of Hygiene, which met at Geneva in September 1882, has adopted for this competition the following programme, as prepared by the London Society for the Prevention of Blindness:—1. The study of the causes of blindness; (a) Hereditary causes; diseases of parents, consanguineous intermarriages; (b) Infantile eye diseases; various inflammations of the eyes; (c) School period and time of apprenticeship, progressive short-sightedness, &c.; (d) General diseases; diatheses, various fevers; chronic poisoning, &c.; (e) Trade influences; wounds and accidents, &c.; sympathetic ophthalmia; (f) Social and climatic influences; contagious ophthalmias; unhealthy habitations; defective lighting, &c.; (g) Neglect of treatment and bad treatment of eye affections. 2. The study of practical preventive means:—(a) Legislative means; (b) Hygienic and professional means; (c) Educational means; (d) Medical and philanthropic means. The international Jury, elected by the Geneva Congress, for the purpose of judging the essays consists of—Holland: Dr. Snellen, professor of ophthalmology, Utrecht. Germany: Dr. H. Cohn, professor of ophthalmology, Breslau. France: Dr. Fieuzal, physician to the Hôpital des Quinze-Vingts, Paris; Dr. Layet, professor of hygiene, Bordeaux. Italy: Dr. Reymond, professor of ophthalmology, Turin; Dr. Sormani, professor of hygiene, Pavia. England: Mr. Streetfield, professor of ophthalmology, University College, London; Dr. Roth, honorary secretary and treasurer (*pro tem.*) of the Society for the Prevention of Blindness, London. Switzerland: Dr. Dufour, of the Ophthalmic Hospital, Lausanne; Dr. Haltenhoff, lecturer on ophthalmology, Geneva, and secretary to the Jury; Dr. Courserant, oculist, Paris; and Dr. Berlin, professor of ophthalmology, Stuttgart. Those essays to which prizes have been awarded will become the property of the Society for the Prevention of Blindness, and of the International Society for the Amelioration of the Condition of the Blind, who will be at liberty to publish them in whole or in part, in several languages, in order to make them useful in the way they consider best. The (inedited) manuscripts for competition are to be sent to Dr. Haltenhoff, Geneva, not later than March 31, 1884. Every manuscript has to be distinguished by a motto, which is also to be written on a sealed envelope containing the name, Christian name, titles, and address of the author. The envelopes will not be opened until after the award of the Jury.

WILKS ON THE EVOLUTION OF THE STETHOSCOPE.—Dr. Samuel Wilks in the *Lancet*, Nov. 1882, p. 882, gives an account of the evolution of the stethoscope. He shows how the present forms are derived from the first instrument used by Laënnec in 1816. Laënnec rolled a quire of paper into a kind of cylinder, and applied one end of it over the patient's heart, the other to his own ear. Finding the success of this plan, Laënnec made various instruments of wood, glass, metals, &c., but finally employed a cylinder of wood an inch and a half in diameter and a foot long, perforated longitudinally by a bore three lines wide, and hollowed out into a funnel shape at one of its extremities; after a time the sides were cut out to make the instrument lighter and more elegant, and later on a difference was made in the size of the two ends; so that the modern instrument though not much like a block of wood itself, can easily be traced from one. The flexible stethoscope has also been known for many years, for in 1829 Mr. Comins of Edinburgh wrote an account of a flexible instrument, which 'can be used in the highest ranks of society without offending fastidious delicacy.'

The London Medical Record.

ARTICLE 246.

BAGINSKY ON RICKETS.

THE second of the series of monographs upon diseases of children, by Dr. Baginsky, is devoted to rickets, and in 120 pages the author gives a clear and concise account of the disease, which he has had extensive opportunities of studying. Introducing his subject by stating that the original description by Sydenham still remains the best, he reminds us that from the earlier part of the seventeenth century, when the disease was named by Glisson, up to the present day, few maladies have been so widely treated of; notwithstanding which, we are still far from an exact comprehension of its essential nature. In his opinion there still remain the questions:—Is the disease a local affection of the skeleton, or a constitutional malady? And what is the nature of the cause that brings it about? To answer these, he brings to bear his observation of upwards of 600 cases ranging in age from three months to thirteen years.

In the course of a graphic description of a typical case of rickets well worth quoting, did space permit, in its entirety, the author prominently draws attention to the influence of age on the character of the symptoms, showing that when the disease appears in older children the malformations of the skull, as compared to those of the thorax, spinal column, and extremities, are usually slight. And again, whilst the disturbances of digestion, respiration, and the nervous system are more marked in younger children, after the end of the second year little more than the skeletal deformity may be observed, except for which the child might be almost considered healthy.

As the result of a very considerable number of weights and measurements, Dr. Baginsky concludes that the deficiency in body weight and length, which is met with, is an expression of a very severe disturbance of the general nutrition, and may be represented by the quotient obtained from the division of the length by the weight, which is less than that in health; also that the relative proportion between the head and thorax is smaller than it should be.

Respecting the influence of rickets on dentition, the author states that, whilst normally the milk-teeth are cut between the seventh month and end of the third year in groups of two and four, in the rachitic cachexia the eruption begins and concludes three months later, and does not occur as a rule in groups. Again, the rickety teeth do not last as long as the healthy, but are good, provided the morbid change is not established until most of the teeth have been cut.

The changes in the skeleton induced by rickets are well described, though with but little addition to our knowledge. In the skull, the alterations are due to coincident atrophy and hyperplasia of the osseous tissue, although the former process is best marked in the earliest months. As to the time of the growing together of the sutures and closure of the fontanelles—a still debated question—the author's experience agrees with that of Ritter. In more than half the

cases, the fontanelles were closed by the eighteenth month, and in some cases even by the eleventh.

In addition to the deformity of the jaws described by Fleischmann, which consists in a flattening and angularity of the lower jaw with incurvation of the alveolar margin and a corresponding portion of the teeth, the writer describes an occasional want of symmetry between the two halves of the bone, which produces the appearance of one side thrusting over or being higher than the other. The course of the disease is stated to be mainly determined according to the part of the skeleton which happens to be most actively growing at the time of its onset.

Passing on to the affections of the viscera with the symptoms to which they give rise, we may note the author's remarks on laryngeal spasm, which, he considers, may be due to several causes. Sometimes the convulsions are anæmic in origin, especially through cardiac arrest from peripheral irritation of the organs. Severe dyspepsia determines them in other cases, by stimulation of the vaso-motor centres from gastric irritation.

The systolic cerebral murmur, first described by Fischer in 1852, Dr. Baginsky agrees with Epstein in considering to be a clinical phenomenon definitely related to rickets, since the majority—though not absolutely all—the cases in which it is to be noticed are rickety children. The cause of the *bruit* he regards as still to be discovered; and though admitting that pressure on the carotid arteries may give rise to a sound that can be heard in the skull, he is far from thinking that this pressure is invariably produced by enlarged lymphatic glands.

The relationship of rickets to disturbance of digestion is shown to be most close. There is, in short, no rickets without such disturbance, and many cases are to be traced entirely to it. The forms that the dyspepsia takes are very varied; sometimes acute vomiting and intestinal catarrh, with a lingering diarrhoea; sometimes constipation, alternating with diarrhoea, or even becoming intractable; but in all cases there is extreme emaciation. In reference to the very interesting question of hepatic and splenic enlargement, the author's conclusions as regards the liver are entirely negative; whilst, as regards the spleen, he concludes that, though usually enlarged, it is not invariably hypertrophied in rickets. Similarly, swelling of the lymphatic glands is not a constant symptom, nor indeed dependent on rickets. The relaxed and flabby condition of the muscular system, the anæmic and shrunken integuments, and the profuse sweatings, especially of the head, are all referred to, but without any addition to our knowledge.

Speaking of the very debatable subject of so-called 'acute rickets,' Baginsky quotes two cases accompanied with high temperature, which in the absence of other pathological conditions was only to be referred to the existing rickets, and concludes that the designation of acute rickets is only to be applied to those cases of acute or subacute epiphyseal swellings with more or less pyrexia, with secondary affection of bone. Upon the characters of the excreta, the writer makes some valuable observations based on his own analyses. The total quantity of urine in twenty-four hours varies very considerably, and ranges in specific gravity from 1.010 to 1.040, and except there be complications, abnormal constituents are not met with. It appears that the nitrogen is much more readily lost by the rickety than by the healthy child, whilst the reverse obtains as regards

the phosphoric acid. The lime and magnesia salts are voided in the same proportions as in health, and the former are liable to disappear entirely from unknown causes, as occasionally is the case in health. There is a diminution in chlorine in the urine of rickets. For every kilogramme of body-weight the stools contain a greater amount of lime in rickets, whilst the phosphoric acid remains about normal.

The author mainly adopts Virchow's view as to the nature of the rachitic process, attributing the weakness and fragility of the bones to the deficient calcification, whilst microscopically there is seen irregularity of the line of ossification, so that the cartilage extends into the calcified zone, with deposits of lime scattered in the cartilage itself.

With this extension of the medullary spaces and vessels beyond the limits of calcification, there is an abundant formation of osteoid tissue, through direct transformation of cartilage-corpuscles into osteoblasts. This so-called metaplastic ossification is the view adopted by Strelzoff. A *résumé* is given of the views of Kassowitz and Schwalbe, the latter of whom considers that the lamellar transformation of bone takes place very slowly in rickets, whilst there is abundant formation of reticular osseous tissue, producing such a condition of osteoporosis as might result from inflammation; indeed, Baginsky is disposed to regard rickets as a form of chronic inflammation, in which the development of the vessels and distribution of the nutritive material are the chief determining conditions of the process.

His analysis of the bones in young cases of well-marked rickets corresponded with those of other authors, but he failed to confirm the observation of Marchand and Lehmann that glutin was absent.

The subject of etiology is treated at length. The disease certainly appears most frequently in the second year of life; and, on the whole, the writer is disposed to doubt the influence of heredity in its production, notwithstanding Ritter's views to the contrary. As regards the influence of the constitution of the parents in its development, Baginsky altogether denies the view of Parrot, that rickets is a form of congenital syphilis, though he admits its frequent, or even more frequent, occurrence in syphilitic children: but, at the same time, he has met with severe cases of congenital syphilis where no rickets existed. No direct relationship can be said to exist between rickets and phthisis. In cases of the latter the anemia, malnutrition, and wasting play an active part in the deficient tissue-nourishment, whether of fetus or of infant.

The advanced age or extreme exhaustion of the parents exert any influence they may have in the same way.

The feeding of the child and other points of general hygiene are also considered in reference to their share in causation, but without any noteworthy remark.

Discussing the question of pathogenesis, the writer concludes that no one disturbing cause is sufficient to induce rickets, and shows by an extensive series of experiments that the withdrawal of lime salts from the food produces anomalies in the bones anatomically identical with those of infantile rickets; that they are arrested in their growth in length but are much increased in thickness, especially at the epiphyses, the microscopic structure of which exactly resembles rickets; further, that the osseous tissue under such conditions yields less ash rela-

tively to the animal matter. The general nutrition of the body, so far as mere weight is an indication, does not seem to suffer, but the tissues, especially the muscular, are flabby and anæmic. The simultaneous administration of lactic acid intensifies all these symptoms.

Everything points, the author considers, to the regarding of rickets as a genuine dyscrasia, which determines a severe disturbance of the general nutrition; and he attributes the predominance of the skeletal affections to the active growth taking place in the bones at the time when the disease is developed.

The brief chapter on treatment indicates nothing new, but occasion is taken to refer to the small therapeutic value of lime salts.

Only the briefest abstract has been attempted in the foregoing lines; those portions having been especially selected which the author has more peculiarly made his own, but enough has been said to show that the work is probably the most able extant upon the subject.

W. H. ALLCHIN, M.B.

ARTICLE 247.

ANGEL ON THE BETHLEHEM HOSPITAL.

THE impressions a visit to the Bethlehem Hospital produces on a Spanish physician, are related in a letter from Dr. Martinez Angel to the *Siglo Medico* of Madrid. Dr. Angel's remarks are on the whole flattering, although he does not give indiscriminate praise. He is much struck by the fact that the hospital, with many others, is supported by voluntary charity, and compares the willing help which in England is given by all, rich and poor, to charitable institutions with the habit abroad of throwing all upon the 'Government,' and making 'Government responsible for every fault, when,' as he says, 'the poor thing hardly knows how to keep itself in office, and its head above water.' Again, the care shown in the decoration of the wards, and the amusement of the inmates by ladies and others who voluntarily give their time to this form of useful work, is evidently to Dr. Angel something new, and worthy of especial admiration; and he gives just value to the curative action of pictures, flowers, and games.

The cleanliness and absence of smell in the wards are praised in terms which raise suspicions as to the condition of some Spanish hospitals. Indeed, when he speaks of 'cleanliness, that substitute for antiseptics,' we seem to have an explanation of many of the shortcomings of hospitals abroad.

Dr. Angel describes clearly and correctly enough the plan and arrangements of the building, and admires greatly the dietary and arrangements for bathing.

Equal praise, too, is given to the theatre, reading room, &c.; but from his description of the way in which the patients are classified, it is to be feared that his readers will hardly be enlightened. Through some misunderstanding, he says that there are three classes of patients here detained—the *fractory*, the *refractory*, and the *wrong* cases. These latter are evidently, through a verbal misapprehension, the 'chronic' cases, and we suppose that the other terms are used in mistake for tractable and intractable. Finally, Dr. Angel discusses the condition of the law as to criminal responsibility in the insane, which, he appears to consider, favours the criminal unduly. He propounds the ingenious theory that the reason

why all the authors of the attempts on the Queen's life have been found to be insane, is due to 'a Mephistophelian policy which tries to incultate in the masses the idea that no one but a madman could raise his hand against the sacred life of "Her Majesty the Queen."'

WALTER PYE.

ARTICLE 248.

MARTIN ON THE PATHOGENESIS OF ENDOCARDITIS AND CARDIAC SCLEROSIS.

IN the *Revue de Médecine* for February, Dr. Hippolyte Martin says 'that in the majority of cases affections of the heart are of general causation.' Endocarditis is the most frequent of cardiac diseases, and he divides its anatomical lesions into exudative, suppurative, and proliferative. The endocardial diseases he divides into those of *valvular* and those of *vascular* origin, either of which may be acute or chronic.

After describing the minute anatomy of the cardiac valves, he recalls the statement of MM. Potain and Rendu 'that in acute endocarditis the edges of the mitral valve have the unenviable privilege of suffering the first attacks of the disease; the irritation shows itself there by a thickening, tumefaction, and abnormal vascularity of the free border, which becomes transformed into a more or less thick ridge.'

As regards acute endocarditis, the lesion in the exudative form consists merely of small mammillated fibrinous warts near the free border of the valve, enclosing a few lymphoid cells. This form does not usually become chronic, nor entail subsequent cardiac mischief. But the proliferative form, typified in rheumatic endocarditis, is chiefly characterised by a mammillated reddish ridge on the ventricular surface of the valve, formed of stratified fibrine, beneath which is a layer of embryonic new formation, and an endarteritis so intense as to render the vessels in parts almost impermeable. This endarteritis, starting from the vessels in the free border of the valve, spreads in one direction down the chordæ tendineæ, and in another towards the cardiac walls, becoming less marked and finally disappearing as it becomes farther removed from the pathological new formation, with which it is contemporary.

The chronic form presents two classes of lesions. In the one, the valve is studded with hard fibrous vegetations, possibly atheromatous, but is uncontracted, as are also the chordæ tendineæ. In the other, however, there is extensive valvular deformation, and the auriculo-ventricular orifice is greatly narrowed.

The fibro-embryonic ridge of the acute form gives place to several small hard blanched vegetations; fibrous tissue extends over the ventricular surface of the valve, and the vessels are few and scarcely perceptible. Radiating centrifugally from the vegetations is an extensive endarteritis, resulting in the complete disappearance of many vessels, and a contraction of the neoplastic fibrous tissue, more extensive and irresistible as the vascular obliteration is more advanced. The auriculo-ventricular ring, chordæ tendineæ, muscoli papillares, and even the cardiac walls, show bands of fibrosed tissue and vascular obliteration—the result of endarteritis.

From the valvular lesion, two processes may originate. The first, muscular hypertrophy, is physiological. The second, or pathological process,

consists of valvular and juxtavalvular endarteritis with periarteritis, whence radiates a sclerosis, which may extend throughout the myocardium of the left ventricle. The necessary consequences are (1) progressive diminution of blood-supply by vascular contraction; and (2) muscular enfeeblement.

The facts that this radiating sclerosis attacks the chordæ tendineæ and the muscoli papillares from the first; that the vessels of these structures and of the auriculo-ventricular ring are the subjects of endarteritis; and the possible affection of intrinsic nerve-ganglia about the ring, are more than enough to counterbalance the compensating hypertrophy. And the result is ineffectual cardiac contraction and fatal passive congestion.

As regards the aortic valves, the author believes that there, too, arteritis and sclerosis follow a progressive evolution from the valve to the cardiac wall.

The part he assigns to endarteritis in the causation of cardiac affections coincides well with the parasitic theory of rheumatism (Klebs). It is to be noted that the valves come into contact, not by their borders, but by small surfaces or 'facets of contact,' and the author admits the possibility of particles circulating in the blood, whether germs or otherwise, becoming imbedded in the valves during contact; but he also calls attention to the fact that the blood is violently compressed in the capillaries of the 'facets of contact,' and he asserts that the excessive friction may be an important factor.

He then calls attention to the relation between the valvular and annular contraction of chronic endocarditis, and the vascular obliteration in the sclerosed tissues, and asserts that the contraction of the neoplastic tissue of the acute stage is the result of malnutrition caused by vascular obliteration from endarteritis; in support of which view he instances a similar process in other organs, notably the liver, where the absence or presence of obliterative endophlebitis determines a non-contracting or a contracting fibrosis.

Under the heading of cardiac affections of vascular origin, the author commences with chronic affections. Regarding 'renal heart,' or the 'cardiac hypertrophy of interstitial nephritis,' he rejects Traube's mechanical theory in favour of Gull & Sutton's generalised arterio-capillary fibrosis. For, though cardiac hypertrophy is the most prominent feature, a closer study of the organ reveals the pearly tint and resistance to the knife of hyperplasia of connective tissue. While the two principal lesions of endocarditis, then, are found here also, viz., muscular hypertrophy and connective-tissue neoplasms, the essential distinction is to be found in their origin. For, the greater the hypertrophy and fibrosis, so much the more developed is the vascular lesion, which may even be generalised in all the branches of the vascular tree. This lesion is endarteritis, which causes a dystrophic sclerosis, presently reinforced by a radiating sclerosis originating a secondary periarteritis, which principally affect the pillars and fleshy wall of the left ventricle. The muscular hypertrophy is due to progressive circulatory embarrassment.

In both valvular and vascular lesions, therefore, the same result is attained, viz., sclerosis, causing muscular enfeeblement, visceral engorgement, and systolic stasis; the difference being that in one case the starting point is a singular valvular focus, in the other, several vascular foci.

The rarity of death from vasculo-cardiac disease he considers due to the fact that the kidney being

thrown out of gear, organic poisoning, resulting from deficient elimination, causes death before asystolia can occur.

The causes of chronic cardiac disease of vascular origin he takes to be morbid states of the blood with circulation of irritating agents, as in alcoholism, lead-poisoning, gout, &c.

As regards acute cardiac affections of vascular origin, the author records a case where a patient with old heart-mischief, who succumbed during an attack of typhoid fever, showed in the intracardial vessels, in place of the epithelioid coat, a thick lining of old standing fibrous bundles, the result of previous endarteritis; and within this, and bounding the vascular lumen, a layer of superposed round cells, staining vividly and possessed of all the characteristics of embryonic cells, thus clearly indicating that the morbid endarterial process had been evolved at different times. K. W. MILLICAN.

ARTICLE 249.

GRISASNOFF ON AN EPIDEMIC OF ERGOTISM.

DR. P. GRISASNOFF presented to the Poltava Medical Society a report (*Zdorojje*, March 1882) on seventeen cases of raphania, which occurred during the period from July till the middle of Oct. 1881, in several districts of the Poltava Government. (According to the official data, this epidemic attacked 101 subjects, twelve of whom died; the author's cases include only the patients admitted to the town hospital.) The age of the patients varied from 12 years to 45; as to the sex, thirteen were male and four female. All were villagers belonging to the working classes. Four patients (two males, two females) died. The following symptoms were observed:—fornication under the skin (in a few); agonising pains and numbness in the extremities, especially in the calves, and sleeplessness (in all); spasms (in five); loss of appetite (in all but one); headache, nausea, and vomiting (in a few); exhaustion and diarrhœa, weak and accelerated pulse (in all). In all but one case gangrene developed, being of the humid variety in eight, and of the dry in seven; all these patients presented a high temperature (104° Fahr. and more) with evening exacerbations. Gangrene attacked in one case two toes; in one, four toes and a part of the metatarsus; in one, a great toe and the first metatarsal bone; in three, the whole of the right foot; in one, both feet; in six, a foot and a part of the corresponding leg; in one, the right foot and the left leg; in one, both legs, the whole right forearm, and one left finger; and in one, a part of the left forearm. Three of the patients, with gangrene of two or more extremities, died. In the remaining thirteen the following operations were performed:—in one, amputation of the thigh; in six, amputation of the leg; in two, Pirogoff's amputation; in one, amputation through the metatarsus; in one, amputation of two metatarsal bones; in one, exarticulation of a metatarsal bone and a toe; in one, amputation of the forearm. One of the patients operated on died (from pyæmia). In twelve all symptoms disappeared mostly within a short time after the operation, and recovery followed. The treatment before the operation consisted in faradisation, fomentations with turpentine and camphorated oil, and the internal administration of quinine, carbo-lic acid, camphor, and wine. The quantity of

ergot present in the rye-meal which had been used by the patients proved to be not higher than 1 per cent. [In the LONDON MEDICAL RECORD, Oct. 1880, pp. 411–12, is reported Dr. Sviatlovsky's paper on the epidemic of ergotism in the Novgorod Government.—*Rep.*] V. IDELSON, M.D.

ARTICLE 250.

GRIESHEIM AND PFLÜGER ON THE PROPORTION OF THE SEXES IN *RANA FUSCA*.

DR. G. BORN, through researches made about two years since, discovered that, if frog-spawn were artificially fertilised and the tadpoles allowed to grow to maturity, ninety-five per cent. were found to be females. These tadpoles had been fed on meat, and Dr. Born attributed this increase in the proportion of females to the alteration of the natural diet; hence he infers that sex is determined by circumstances affecting the ovum after impregnation. The average natural proportion of the sexes in frogs under a year old had been ascertained by Griesheim to be 36·3 per cent. males and 63·7 per cent. females. Pflüger more recently arrived at nothing but negative results, by fertilising frog-spawn by spermatic fluid removed from frogs at the breeding season and out of that season, and even from the testes of aged frogs. The ova in all cases hatched out, and the proportion of the sexes remained nearly the same in all cases. He next proceeded to collect spawn from Utrecht, Königsberg, Glarus, and Bonn, and fertilised and reared the different samples in separate tanks at Bonn, protecting the tadpoles carefully. The percentage of young male frogs then proved to be as follows; from Utrecht spawn, 13·15; from Glarus spawn, 22·4; from Bonn spawn, 35·7; and from Königsberg spawn 48·5. Pflüger then ascertained the natural proportion of the sexes when the eggs were laid and hatched, under protection, in their native pools. The percentage of young males was then found to be—Utrecht, 13·2; Königsberg, 46·9; Bonn, 35·5. This closely corresponds with the percentages obtained when the spawn was removed to Bonn, and Pflüger infers that the sex of frogs is determined in the ova before impregnation. Differences of water, climate, food, and method of impregnation exerted little influence on the proportion of sexes. In estimating the same proportion in frogs that had reached the second year of adult life, in their native waters, protected from predatory animals, the percentage of males was:—at Utrecht, 47·5; at Königsberg, 50·0; at Bonn, 51·0. Thus the ratio for old frogs is nearly the same at Bonn and Utrecht, though very different in the case of young frogs.

Pflüger (*Archiv für Gesamt. Phys.*) explains this fact by showing that an irregular hermaphroditism exists in young frogs, the genital gland retaining the external aspect of an ovary when it ultimately is destined to be a testicle. This ultimate change is not complete till at the beginning of the second year. This irregular hermaphroditism is a matter of race; in the pools near Königsberg it hardly exists, hence the similar percentage of young male frogs and male frogs in their second year, the testes developing to perfection very early. In Bonn this temporary hermaphroditism is common, in Utrecht still more frequent. In order to test deeper questions relating to sex, Pflüger rightly observes that frogs from

Königsberg must be selected, since in them confusion of sex owing to irregular hermaphroditism is least likely to be present, and to constitute a most serious source of fallacy. ALBAN DORAN.

ARTICLE 251.

BUCHANAN ON A CASE OF ACUTE FŒTID EMPYEMA, TREATED BY INCISION INTO THE PLEURAL CAVITY, WITH COPIOUS ABLUTION; RAPID RECOVERY.

DR. GEORGE BUCHANAN, Professor of Clinical Surgery in the University of Glasgow, reports the following case in the *Glasgow Medical Journal* for February. The patient was under the care of Dr. Whitson, but as she was a family connection of his, he from the outset asked Dr. MacLaren to direct the medical treatment. The case proving very serious, Professor Gairdner was asked to co-operate as consultant, so that all the features, some of which are very unusual, if not unique, can be vouched for by competent observers.

Miss D., aged 19, enjoyed good health till Sept. 24 last, when she began to suffer from pains in the left side of the chest. On the 28th, the symptoms became more severe. She had pains over the left mammary region, increased on taking a deep respiration, and on applying the stethoscope over the painful part a friction-sound could be heard. There was dulness over the left lung behind, and diminished respiratory murmur. She had a short cough, but no expectoration, and she lay on her back well supported with pillows, as the pain was worse when she attempted to lie on her left side. Her temperature rose to about 101°, and her pulse to 130. The treatment at this stage consisted in moving her bowels well, keeping poultices constantly applied to the painful part, and giving her a diuretic mixture containing iodide of potassium. The symptoms became gradually more severe. Effusion into the left pleura was evidenced by dulness on percussion over the whole posterior region, and anteriorly as high as the third rib, and by displacement of the heart to the right of its normal situation. Her respiration rose to 36 per minute, and her pulse to about 140. On Oct. 3, Dr. Gairdner saw her for the first time in consultation. He thought her illness a serious one, but had hopes that in a short time the acute symptoms would abate under the treatment pursued. He saw her again on Oct. 7 and 12, and on the 14th all hopes of being able to cope with the disease without recourse to thoracentesis were given up, as she was then in a dangerous state, owing to the prolonged high fever, the greatly enfeebled and very rapid heart's action, and the great and apparently increasing dyspnoea.

On Oct. 14, Dr. Buchanan was called on to perform paracentesis thoracis with the aspirator in the following circumstances. Miss D.—'s pulse was 140; respirations, 50; countenance anxious; breathing oppressed; she could not lie down owing to the sense of suffocation; the left side of the chest bulged, but not decidedly at the intercostal spaces; the respiratory movement of the left side was impeded; percussion was dull all over the left side; the heart was displaced toward the middle line. There was no pneumothorax, nor any evidence of connection between the pleural cavity and bronchial tubes.

He made the puncture two inches below the point of the scapula between the seventh and eighth ribs, and drew off about 70 ounces of dark brown putrid pus of most offensive odour. The operation was attended with most gratifying results, the patient sleeping during the following night several hours at a time, which she had not done since the onset of the disease.

The fluid rapidly re-accumulated, so that on the 19th matters were much as described on the 14th. The operation was therefore repeated, and twenty ounces of pus removed. In this case the pus, though still putrid, was not so dark in colour, and more watery.

In both instances, the pus was submitted to microscopic examination and the presence of bacteria established; but this was forty-eight hours after evacuation, so that there is no proof of their existence in the pus while it was in the pleural cavity.

The relief after the second tapping was as apparent as before; but again, in twenty-four hours, the fluid was evidently accumulating. Accordingly, with the concurrence of the other medical attendants, Dr. Buchanan gave chloroform, and made a free incision into the pleural cavity, near the site of the puncture. He introduced his forefinger into the chest to explore the cavity, and found the pleura costalis covered with a soft pulpy membrane; the upper surface of the diaphragm was smooth, but he could not reach the pericardium with his finger. The lower edge of the lung felt soft, but was so far off that he could only touch it. He now introduced the two tubes of a Gooch's double cannula, crossing them like the letter X, and washed out the pleural cavity with tepid water containing Condy's fluid, using an India-rubber tube as a siphon. About eight gallons of fluid were made to flow through the chest till it ran out perfectly pure and odourless, and of the original colour of the Condy's fluid as diluted. A large vulcanite tracheotomy-tube was passed into the chest through the opening and secured there to ensure drainage.

The effect of this apparently rude proceeding was marvellous; most marked improvement in breathing, pulse, and temperature, and general comfort. The patient slept in the afternoon, and several hours during night. Occasionally she was troubled with a tickling cough, for which camphor dissolved in chloroform was tried. There never was much expectoration; and that of clear mucus.

From this time onward the progress to recovery was uninterrupted and rapid. Pus in very small quantity and of no offensive odour continued to be discharged for some days by the tube; but by November 11 it had become blocked up, so Dr. Buchanan took it out, giving exit to a little healthy yellow pus. He again washed out the chest with water and Condy's fluid; but it ran clear at the very first. Instead of the hard vulcanite tube he put in a soft ordinary drainage-tube, about six inches long, and secured it in its place. Through this a few drops of pus were discharged daily, but this completely dried up before the tube was finally removed on Nov. 22. In a few days the opening into the thoracic wall was completely closed—that is, in about five weeks after the incision. After this, the patient rapidly regained health and strength.

Remarks by Professor Gairdner.—This case is unique within my experience, in respect of the rapid formation of an acute empyema, not only dangerous and extreme in its symptoms from the first, but in

all probability septic and even gangrenous, apart from any primary lesion of the lung or other organ or part, such as in the great majority of cases determines a really foetid empyema. Even in a somewhat extended pathological experience, and among many hundreds of observations in my own cases and those of others, I cannot remember to have ever witnessed a positively putrid collection of this kind, in which there was not at the same time either foetid abscess or gangrene of the lung, or, on the other hand, a perforation leading to pyo-pneumothorax, with septic contamination of the effusion; and even in cases in which leakage had taken place from the pleura into the lung through a superficial slough of the former, the absence of distinct septic contamination has usually been rather remarkable. Moreover, the symptoms in this case approximated closely to those of the rare and dangerous form designated by Fräntzel as 'pleuritis acutissima,' in which a fatal result is almost unavoidable, whether or not evacuation of the contents of the pleura is practised (Ziemssen's *Cyclop. of the Practice of Medicine*, Vol. iv., p. 602). Such cases, apart from complications, are undoubtedly exceptional. In the first twenty years of my experience I can recall only one, and perhaps one or two at a later date. 'Such cases are rare,' writes Dr. Clifford Allbutt in probably the latest English *résumé* of the subject, 'except as complications of septic and other diseases, and they are almost surely fatal, even after free evacuation of pus by incision' (Quain's *Dictionary of Medicine*, p. 1213.—Note). When, therefore, in the present case, after twenty days of accumulation, the aspirator gave vent to a pus so horribly foetid that the first gush of it was almost intolerable, even in a large airy apartment, the mind was led irresistibly to the idea of some latent primary gangrene, either in the lung itself, or in some other viscus with secondary gangrenous abscesses forming in the lung. A certain amount of equivocal odour, suggestive of possible septicaemia, had, indeed, been detected in the breath and transpiration of the skin, and had formed one of the elements of a grave prognosis; but, on the other hand, there had never been any but the most insignificant expectation; and even after the first aspiration of the chest, most careful observation failed to detect any evidence of pulmonary lesion on the one hand, or of pneumothorax on the other. After the second aspiration, it became only too clear that nothing could possibly save the patient except free incision, and washing out the cavity; but we hardly ventured to hope that these measures would be so rapidly successful, and that the source, whatever it was, of septic decomposition would be not only reached but apparently removed by one, or at most two, ablations of the cavity with diluted Condy's liquor. The result, unexpected and gratifying as it was, deserves to be recorded, even although it leaves the question of the source of septic infection as obscure as ever.

ARTICLE 252.

LANDOLT ON PEROXIDE OF HYDROGEN IN OPHTHALMIC PRACTICE.

IN a recent article in the *Archives d'Ophthalmologie* (Vol. 2, No. 5), Dr. Landolt of Paris calls attention to the value of peroxide of hydrogen as a disinfectant in ophthalmic practice. While there is no lack of antiseptics in general surgery, it cannot

be said that as yet any single one has been discovered which fulfils the peculiar conditions required in ocular therapeutics. It is this fact which renders Dr. Landolt's observations interesting and important. If his present conclusions should later be found to bear the test of experience, it is not too much to say that he will have made a very valuable addition to the list of ophthalmic remedies.

Peroxide of hydrogen, though discovered by Thénard as long ago as 1818, has only been used as a disinfectant comparatively recently. The earliest experiments on its physiological action are due to Assmuth and Schmidt. These observers in 1864 found that, when injected into the veins of a dog, it caused vomiting, dyspnoea, and syncope, but not death. This result, however, did not tally with that obtained by Guttmann and Schwerin, who experimented with this agent in 1878. They found that it underwent decomposition in the living tissues, with the production of free oxygen in quantity sufficient to cause gaseous pulmonary embolisms, and death, accompanied by all the phenomena of arrested capillary circulation. More directly practical, however, were the experiments of Stöhr on peroxide of hydrogen as a disinfectant. He employed it extensively in cases of phagedaenic and syphilitic ulcers, and in diphtheria. He found that it exercised a most beneficial influence on the course and healing of such ulcers. The pus discharged, quickly and became more benign in character, healthy granulations sprang up, and losses of substance were rapidly repaired. The pus from venereal ulcers lost its specific virus, according to Stöhr, after having been two hours in contact with a concentrated solution of peroxide of hydrogen. More recently MM. Péan and Baldy have given this comparatively new remedy an extended trial in the surgical wards of the Hôpital Saint Louis. They have found it, when diluted with from twice to six times its volume of water, an excellent substitute for alcohol or carbolic acid in antiseptic dressings. Externally it may be applied to every form of wound or ulcer, either as a dressing or in spray. It has been administered internally in cases of pronounced uræmia, septicæmia, erysipelas, and tuberculosis. It is especially suitable for dressing flaps after amputation, as its presence would seem to encourage union by first intention. Moreover, the general sanitary condition of the wards was apparently improved by its use, cases of traumatic fever having become fewer. Over carbolic acid it possessed the manifest advantage of being free from snell or toxic influences, while its application caused no pain.

Working from these data Dr. Landolt has now suggested the use of peroxide of hydrogen in some of the many forms of eye-affections in which antiseptics are indicated. Hitherto there has been a serious practical difficulty in their use in ophthalmic surgery. The ocular tissues are more delicate, more sensitive, and more easily altered than those of any other portions of the body. Antiseptics, such as carbolic acid, alcohol, or salicylic acid, cannot be used in contact with the iris, conjunctiva, cornea, or crystalline lens, in a sufficiently concentrated form to be effective. At the strength they have hitherto been used in ocular surgery they are, to judge by experiment and analogy, wholly without effect on microzoa. This, however, is not the case with peroxide of hydrogen. The oxygen liberated by the decomposition of this fluid is in a nascent state, and consequently may be supposed to act much more

energetically than ordinary oxygen. A weaker solution of the peroxide than of other disinfectants may therefore be employed with at least equal benefit. The detergent properties of this agent are not among its least remarkable ones. When it is applied to a conjunctiva affected with catarrh, the membrane becomes immediately covered with a white froth. This results from the rapid decomposition of the fluid which takes place in presence of certain organic matters. The products of secretion are, as it were, entangled amid a mass of minute air-bubbles and intimately mingled with them. They are not so much unformed or destroyed by the liberated oxygen, as placed, by their mechanical mixture with it, under the most favourable conditions for speedy and complete removal. As a matter of fact, the thin layer of froth, when removed with a piece of lint, shows the suppurating surface below it to have been thoroughly cleansed. All septic fermentation has likewise for the moment been cut short.

The above phenomena Dr. Landolt has observed in cases of simple purulent conjunctivitis, occurring both in infants and in adults. In these cases a solution of 30 per cent. by weight of oxygen was used, with extremely satisfactory results. More interesting, however, is a case of gonorrhœal ophthalmia recorded by the author. The disease occurred in a young man aged 22, and was of a typically violent form. It had been neglected for eight days, and the cornea was ulcerated, infiltrated with pus, and on the eve of perforation, while panophthalmitis appeared all but inevitable. The eye was immediately treated by instillation of eserine and peroxide. Suppuration ceased rapidly under this treatment, and healthy cicatricial tissue took the place of the destroyed cornea. The influence of this antiseptic on the course of unhealthy ulceration was well shown in another case, recurring in a young female, whose left cornea had been the seat of a serpiginous ulcer for fifteen days. The cornea was infiltrated in its totality, the anterior chamber was filled with pus, while suppuration of the lachrymal sac was present as a further complication. Frequent application at regular intervals of the peroxide, together with eserine, was the treatment which Dr. Landolt employed. After a few days, the improvement was most striking. Dr. Landolt advocates very strenuously the use of peroxide in cases of diphtheritic ophthalmia, in suppuration of the lachrymal passages, in purulent conjunctivitis of every variety, and in all simple or serpiginous ulcers of the cornea.

For this remedy to be effective, it is absolutely necessary that it should be chemically pure. A very slight contamination with acid or alkaline substances will be sufficient not only to neutralise all its excellent qualities, but to render it positively hurtful. A series of tests are given in M. Landolt's article, all of which are easily applied. They are directed chiefly against the presence of alkalis, such as barium, of sulphuric and hydrochloric acids, and of certain organic impurities. The strength of any specimen is best determined by volumetric analysis with potassic permanganate. Peroxide of hydrogen for ophthalmic use should be kept in small corked phials in a cool place, and shaded from light. The addition of small quantities of ether renders the drug much more stable. Dr. Landolt, however, deprecates the addition of any reagent whatever to peroxide of hydrogen, so important is it, in his opinion, that the solution should be as chemically pure as possible.

LITTON FORBES.

SURGERY.

RECENT PAPERS.

253. VENER, A.—A Case of Successful Gastrostomy for Complete Stricture of the Œsophagus. (*Mediz. Oberz.*, March 1882, pp. 419-423).

254. SKLIFFSOVSKY, N. V.—Arterio-Venous Aneurism of the Orbit treated by Ligature of the Common Carotid. (*Wratch*, 1882, No. 13, pp. 201-4).

255. SUPRUNENKO, M.—On a Case of Strangulated Hernia Treated by Electricity. (*Wratch*, 1882, No. 17, p. 281).

256. SARMATSKY.—On a Case of Penetrating Wound of the Abdomen. (*Wratch. Vedom.*, 1882, No. 18, pp. 3181-2).

257. GRITTI.—On the Surgical Cure of Spermatalgia, with Clinical Observations. (*Gazz. Med. Ital. Lombardia*, Jan. 13, 1883.)

258. TANSINI.—Thermo-galvanic Cautery and Knife for the Incision of the Prostate in Prostatic Ischuria. (*Gazz. degli Ospitali*, Dec. 3, 1882.)

259. BRICHETTI.—Extra-peritoneal Nephrectomy. (*Gazz. degli Ospitali*, Sept. 3, 1882.)

260. NUÑEZ.—Case of Traumatic Tetanus: Cure. (*Gaceta de Mejico*, Aug. 1882.)

261. BOGMOLOFF.—Lacerated Wound of the Abdomen; Suspected Injury of the Upper Part of the Small Intestine; Recovery. (*Wratch*, No. 43, 1882.)

262. FISCHER.—A Case of Gastro-Enterostomy. (*Deutsche Zeitschr. für Chir.*, Band xvii, 5, 6.

263. BRUNTZEL.—Extirpation of the Left Kidney for Removal of a Gigantic Fibroma of the Capsule: Recovery. (*Berlin Klin. Wochenschr.*, No. 49, 1882.)

264. JORDISON.—Recovery after a Broken Neck. (*Lancet*, Oct. 1882, p. 658.)

265. MORRIS.—Hæmorrhage into the Cavity of the Arachnoid. (*Lancet*, Nov. 1882, p. 795.)

266. WILLIAMS.—The Osseous Lesions of Locomotor Ataxy. (*Lancet*, Dec. 1882, p. 977.)

267. BROWN.—Non-traumatic Extraperitoneal Rupture of Bladder. (*Brit. Med. Jour.*, Dec. 1882, p. 1298.)

268. TREVES.—Perforating Ulcer of the Foot, and Progressive Locomotor Ataxy. (*Lancet*, Oct. 1882, p. 653.)

269. THORNTON.—Mesenteric and Omental Cysts. (*Brit. Med. Jour.*, Dec. 1882, p. 1242.)

270. SYMSON.—Traumatic Aneurism of the Facial Artery. (*Brit. Med. Jour.*, Dec. 1882, p. 1296.)

ART. 253. *Vener on a Case of Successful Gastrostomy for Complete Stricture of the Œsophagus.*—Dr. A. Vener describes in detail (*Mediz. Oberz.*, March 1882) the case of a man, aged 49, who was suffering from a cancerous obstruction of the Œsophagus, the first symptoms of which had been observed about eighteen months before the operation. The patient was extremely emaciated, weighed 105 lbs., was not able to swallow solids, nor, of late, even fluids. The stricture was situated at the distance of 30 centimetres from the incisors. Gastrostomy, to which the sufferer readily consented, was performed by Dr. Knie after the plan of Fenger and Howse, under the strictest antiseptic precautions (but without spray). The patient bore the operation excellently. The highest temperature (100°6) was observed on the second day, after the first stage of the gastrostomy. On the seventh day the salicylic dressing was removed, and on the eighth the stomach was opened and a drainage-tube (provided with an Escher's obturator) introduced. On the nineteenth day the patient got up, and on the fortieth left the hospital, feeling quite comfortable and having considerably gained in weight. Drs. Vener and Knie emphatically insist on the necessity of performing gastrostomy in cases of cancerous stricture at as

early a period as possible, before the patient's strength has been exhausted and the œsophagus has become absolutely impassable. [This is only the second successful case of establishing a gastric fistula known in the Russian literature. In the first (non-cancerous) the operation was performed by Dr. A. S. Satzenko, of Kieff. All the other Russian cases of gastrostomy (Professor Sklifosovsky's two, Drs. Snegireff, Anders, G. F. Tiling, Stukovenkoff, Kitaevsky) were followed by death within a few days after the operation. The longest survival (nineteen days) presents the second case of Professor Sklifosovsky (*Tratch*, 1880, No. 21, pp. 341-2). Save Dr. Anders' case, in which fatal peritonitis developed (*Peters. Med. Wochens.*, 1881, No. 21) all the patients died from exhaustion. The first case of Professor Sklifosovsky was reported in the LONDON MEDICAL RECORD, Jan. 1880, p. 23. Other interesting papers on the subject of gastrostomy are to be found in the LONDON MEDICAL RECORD, Jan. 1880, p. 25 (Krönlein's); Feb., p. 35 (Herff's); Oct., p. 415 (Elias's); 1881, March, p. 95 (Kraske's, and one of Staton's); May, p. 202 (Bryant's); July, p. 278 (Prewitt's); Dec., p. 504 (Jones's); 1882, Nov., p. 462-3 (Kappeler's).—*Rep.*]

254. *Sklifosovsky on Aneurism of the Orbit treated by Ligation of the Common Carotid Artery.*—In the *Tratch*, 1882, No. 13, there is a very interesting clinical lecture by Professor N. V. Sklifosovsky, of Moscow, on a case of idiopathic aneurism of the right orbit in a male non-syphilitic patient, aged 45, of moderately alcoholic habits, with chronic arteritis. All symptoms of the aneurism, viz., pulsating exophthalmos, œdema of the lids, dimness of vision, headache and earache, noise in the head, had been developed quite suddenly, no history of injury having been obtained. On examination of the patient about six weeks later, there were found, in addition to the above symptoms, total loss of vision, insensibility and opacity of the cornea, dilatation and immobility of the pupil, anaesthesia of the lids and right half of the forehead, complete immobility of the eyeball, pulsation on pressure of the latter, blowing noise (like that of a pair of slowly working bellows) heard over the right eyeball and the corresponding temporal, parietal, and occipital regions, and disappearance of the subjective noises on compression of the right carotid at the level of the cricoid cartilage. The author diagnosed rupture of the atheromatous right internal carotid within the cavernous sinus, and the influence of some accidental increase of arterial tension. After the failure of seven days' treatment by compression of the carotid (ten minutes every hour), and low diet, the artery was tied at the level of the cricoid cartilage. Four weeks later the state of the patient was found satisfactory; the opacity of the cornea, the œdema of the lids, and the exophthalmos had disappeared almost completely; the eyeball became movable (abduction, however, was paretic); cutaneous sensibility was restored, and headache had ceased. The loss of vision, however, remained as entire as before the operation. Within five days after the ligation, there began to be developed a cataract of the right lens. [In the *Lancet*, Dec. 3, 1881, pp. 945-7, Dr. J. R. Wolfe describes another remarkable case of this rare affection, cured by the same operation.—*Rep.*]

255. *Suprunenko on a Case of Strangulated Hernia treated by Electricity.*—Dr. M. Suprunenko, of Gadiatch, reports (*Tratch*, 1882, No. 17) a case of reduction of right inguinal hernia by means of faradisation. The patient, a weak woman, aged

45, who had suffered from the rupture eight years and never wore a truss, was first seen three hours after the incarceration. Half an hour's taxis having failed, the author decided to try electricity. A moderately strong current from a small Spamer's apparatus was used, the positive electrode being applied to the tumour (which was as large as a goose's egg); the negative at first to the lower lumbar vertebrae, then to the umbilical region. Within less than two minutes the hernia disappeared, and with it pain, tympanitis, and collapse. [In the *Tratch*, 1881, No. 3, p. 45, Dr. T. Bronstein, of Telesnitsa, recorded a case of cure of incarcerated scrotal hernia by two minutes' faradisation (both electrodes to the hernia), after complete failure of five hours' taxis, treatment by posture, warm baths, enemata, and anaesthetics. Shortly afterwards, his example was followed by Dr. M. Rosenhart (*Tratch*, 1881, No. 40, p. 675) with the same luck. After unsuccessful treatment by taxis and ice, the hernia disappeared almost instantaneously from application of electrodes of a small Gaiffe's apparatus. Naturally, all three authors are very enthusiastic about this method of treatment of strangulated hernia. In the LONDON MEDICAL RECORD, Oct. 1880, p. 408, there are to be found Boude's two cases of intestinal occlusion successfully treated by electricity.—*Rep.*]

256. *Sarmatsky on a Case of Penetrating Wound of the Abdomen.*—The author reports (*Trache. Velom.*, 1882, No. 16) the case of a patient, aged 55, who had attempted suicide, and cut into his abdomen with a large knife four successive times. When first seen, three hours after the accident, the patient was found lying on the dirty floor of a cattle-hut, in a fainting state, with all the small intestines and the whole omentum majus protruding out of a clean-cut wound which extended from the scrobiculus cordis far below the umbilicus. There were seen also three other smaller wounds, all of them perforating the abdominal wall. The protruded parts, which were covered with mud and blood, were washed with tepid water and returned, and then all the wounds closed with silk sutures, and dressed with cold water. Three weeks later the patient left the hospital, having recovered without any complication except a small abscess in the abdominal wall near the largest wound. V. IDELSON, M.D.

257. *Griffi on the Surgical Cure of Spermatalgia, with Clinical Observations.*—Griffi says (*Gazz. Med. Ital. Lombardia*, Jan. 13, 1883) that spermatalgia or neuralgia of the testicle is, like other neuralgiae, symptomatic or essential. The first, or symptomatic, is due often in young men to plethora of the testicle, to which the pain is then confined; or to lumbar spondylitis, of which intervertebral or lumbar pain extending to the testicle—which is spasmodically and painfully retracted—is an early symptom; to renal lithiasis, or passage of a stone through the ureter, the pain ceasing as the stone reaches the bladder; to pressure on the spermatic cord by an inguinal hernia or badly fitting truss; by varicocele or hydrocele. In these cases, the only effective treatment of the neuralgia is the removal of the cause. In the essential spermatalgia (*irritable testis* of Astley Cooper) the pain, slight at first, becomes intense, paroxysmal, with retraction of the testicle; it is increased by movement, but paroxysms often occur when the patient is at rest. It is generally intermittent, and often there are long intervals between the attacks. The pain extends to the groin and lumbar region of the affected side. It is generally unilateral,

oftener on the left side. There is no organic alteration to be found. The nerves implicated are those which arise from the lumbar plexus, and which supply, by numerous small branches (abdominal, superior and inferior genital, and femoro-genital) the scrotum, cord, and testicle. This form of spermatalgia resists all the usual methods of treatment. Astley Cooper advised the removal of the testicle, and Nélaton the difficult if not impossible operation of section of the nerves of the spermatic cord. Gritti, surgeon to the Milan Hospital, determined to try in a very severe case (the sufferer refusing to sacrifice his testicle) Vidal's operation of '*enroulement des veines du cordon*,' which he had often performed successfully in the treatment of varicocele. The process is shortly this. Two long and flexible wires, one thicker than the other, are introduced by one aperture, passed one on each side of the cord (leaving out the vas deferens) and brought out on the far side also by one aperture. The opposite ends of the wires are then twisted together round a little cylinder of cork. The compressed veins and nerves become necrosed for two or three centimètres, and a deep cicatrix is formed. By this means all the nerves of the spermatic cord (except those of the vas deferens) are divided, and the resulting cicatrix is sufficiently long and deep to prevent the nerves from reuniting by new formation. Gritti reports two cases which were entirely successful. In both the pain ceased almost at once. In the first, in a month after the operation, there was a hard and firm cicatrix, the cure was permanent, and there was no loss of function. In the second case, the noose came away on the fifteenth day, and the patient was discharged cured, with a firm cicatrix, in less than a month from the operation.

258. *Tansini on the Thermo-Galvanic Cautery and Knife for the Incision of the Prostate in Prostatic Ischuria.*—Dr. Tansini remarks (*Gazz. degli Ospitali*, Dec. 3, 1882) that it is strange that Professor Bottini's method of dividing or cauterising the hypertrophied lobe of the prostate has not come more into use; the ordinary treatment being very unsatisfactory. By his thermo-galvanic cautery the danger of hæmorrhage is avoided, and the eschar prevents infective absorption. Bottini's instrument is of the shape of an ordinary sound, and has a hidden blade or platinum cautery. In its original form it had the disadvantage of becoming generally heated, which in prolonged operations might damage the urethral epithelium. He now makes the instrument with a double tube, and passes through it a stream of cold water, so that the cauterisation is confined to the exact spot required. With this instrument, he has obtained the best results.

259. *Brichetti on Extraperitoneal Nephrectomy.*—The author, as the result of his studies and experiments, arrived at the following conclusions (*Gazz. degli Ospitali*, Sept. 3, 1882). 1. The system does not suffer from the sudden removal of one of the kidneys. 2. Nephrectomy (in dogs) has no great danger as an operative proceeding. 3. It is better to abandon the peduncle, previously applying two distinct ligatures with catgut, then to close the wound with the twisted suture, using long and strong pins. 4. The urine undergoes no alteration, chemically or microscopically. 5. Hypertrophy of the heart, which is especially found in atrophy of one kidney (Traube) is never met with. 6. The remaining kidney does not increase in weight or volume, but undergoes a fatty degeneration of the

canaliculi, with slight enlargement of the epithelium, noticeable three months after the operation, more evident after six months, and reaching the maximum after the twelfth month. Professors Tizzoni and Pieruti found in rabbits after nephrectomy an increase in weight and volume of the remaining kidney, and a reproduction of glomeruli and tubuli. This the author has not been able to confirm, though he thinks there might be an increase of glomeruli.

260. *Núñez on a Case of Traumatic Tetanus: Cure.*—This case is related by Dr. Núñez in the *Gaceta de Méjico*, Aug. 1882. Propylamin was given in doses increasing from 2 to 10 grammes in the day, dissolved in 300 to 500 grammes of sherry. Hypodermic injections of morphia were also given two or three times a day. The author mentions two other cases in which the same treatment was followed; one was successful.

G. D'ARCY ADAMS, M.D.

261. *Bogmoloff on Lacerated Wound of the Abdomen; Suspected Injury of the Upper Part of the Small Intestine; Recovery.*—Dr. Bogmoloff, of Krasnoie-Selo (*Wratsch*, No. 43, 1882), in the early part of last autumn had under his care a country girl, 11 years old, with a lacerated wound in the lower part of the abdomen, caused by a fall from a scaffold. The patient's mother had reduced a protruding loop of intestine before the arrival of the surgeon, and assured him that she had observed the escape of some fecal matter from the wound. On superficial examination no wound of the intestine could be found, and the laceration of the abdominal wall was closed by three silk ligatures and covered with Listerian dressings. The abdominal wound discharged freely, and traces of half-digested food, with a round worm, were found in the dressings. On the sixth day the discharge became less; on the fourteenth the patient passed the first stool since the injury; by the thirty-ninth, recovery was complete. From the presence of biliary acids, and the absence of fecal odour in the secretion from the abdominal wound, Dr. Bogmoloff concluded that the part of the intestine that was injured must have been the upper portion of the jejunum.

262. *Fischer on a Case of Gastro-Enterostomy.*—Dr. Fischer, of Strasburg, describes the case of a woman, aged 31, who, a year before admission to hospital under his care, had been a patient of Professor Freund, who had removed the uterus for fibro-myxomatous disease. She had all the symptoms of cancer of the pylorus, and Lücke decided upon attempting resection. The stomach was washed out for twelve consecutive days, and on the twelfth the abdominal cavity was opened, but the pylorus was found intimately adherent to the pancreas and other adjacent structures, so that resection could not be performed. The pylorus was, therefore, simply laid open and united to the abdominal wound, as in an ordinary gastrostomy. The operation was performed without spray, and the aperture in the abdominal wound that was united to the opening in the pylorus was dressed with iodoform and covered with thymol gauze. In thirty-seven days the patient was discharged. Since her dismissal from hospital she has been able to take light nourishing food, and remains free from any tendency to vomit.

263. *Bruntzel on Removal of the Kidney.*—Dr. Reinhard Bruntzel, of Breslau, having undertaken the removal of a large abdominal tumour, found

when examining it after the operation, that the kidney was deeply imbedded in its substance; the ureter had been mistaken for a large blood-vessel. The intestine had been injured in the course of the operation, but recovery was complete, although complicated at first by fecal fistula, the result of the injury to the bowel. The tumour proved to be a fibroma weighing 37 lbs., and confined to the capsule of the kidney. ALBAN DORAN.

264. *Jordison on a Case of Recovery after a Broken Neck.*—Mr. Jordison, in the *Lancet*, Oct. 1882, p. 658, gives an account of a case of recovery after a broken neck. The patient, aged 38, was riding at a fence under the arm of a tree, when his horse jumped higher than he expected, and the back of his neck came into contact with a branch, the force of the blow being forwards and downwards. The patient fell off his horse, and was unconscious for about two minutes. As soon as he could speak he complained of intense pain up and down the neck and in his arms and legs. He was carried by Mr. Jordison on a gate to a farmhouse, where he examined him, and found a fracture of the laminae of the fifth and sixth cervical vertebrae, with complete paralysis of the left upper extremity, and also, but to a less extent, of the right, impaired mobility of the left leg, the right being unaffected, and a sense of tingling and numbness over the whole body. There was perfect consciousness. There was paralysis of the bladder, and slight difficulty in swallowing for a few days; no rise of temperature above 101.4° F. There was slight delirium for a few days; the respiration was always normal. By the third day motion was recovered entirely in the left leg, and the tingling was much less. By the fourteenth day there was much greater power in the right arm, and he could just raise the left. Perfect motion was restored in both legs. After this time the paralysis of the arms gradually became worse until the end of the fourth week, when there was complete loss of power of motion over the left arm and hand, with intense hyperaesthesia; the right arm was similarly affected, but to a less degree. On the left side there was complete atrophy of the hand, arm, and shoulder; less on the right. About the fifth week there was slight return of power in the bladder and rectum, and the right arm slowly began to recover. By the end of the eleventh week there was some power in the left arm, but great trouble arose from the stiffness of the joints. The head also could be slightly raised and freely rotated. After the thirteenth week the patient was carried to his own house, and made a rapid recovery.

265. *Morris on Haemorrhage into the Cavity of the Arachnoid.*—Mr. Henry Morris, in the *Lancet*, Nov. 1882, p. 795, gives an abstract of a lecture delivered at the Middlesex Hospital, Jan. 1882, in which he treats the surgical and medico-legal aspects of haemorrhage into the intra-arachnoid space. The source of the blood is generally difficult to trace, and when there is no fracture of the skull, no injury to dura mater, no tear in the visceral arachnoid, no bruising or laceration of the brain, it is impossible to say whence the effused blood is derived. From a surgical point of view these intra-arachnoid effusions are of great importance, but unfortunately often show no definite symptoms, so that surgical interference is not often attempted. From a medico-legal point of view, great importance is attached in many cases to the opinion as to whether the haemorrhage may have been the result of violence or not,

and also as to whether the patient may not have been suffering from diseased arteries, which might have caused the haemorrhage independent of the blow. Mr. Morris gives the notes on a case of a man, aged 31, admitted into the hospital suffering from a superficial wound on the back of the head, but with no symptoms of fractured skull. The patient had been drinking heavily for some days, and was some time before he became conscious. Eleven days after admission the patient went to service, and that night was very restless; the next morning he was comatose and passed his urine in bed, and died comatose sixteen days after the accident. The *post mortem* examination showed no fracture of the skull, but on opening the head a small clot was found immediately beneath the wound, which had compressed the occipital convolution over a small area, whilst on the right side a large clot lay under the dura mater, most abundant over the frontal bone and in the anterior fossa. There was also a considerable quantity over the parietal eminence and over the occipital convolutions. Mr. Morris draws attention to the uncertainty of fixing the exact age of a blood-clot, owing to the variations which effused blood presents in different localities.

266. *Williams on the Osseous Lesions of Locomotor Ataxy.*—Mr. Alex. Williams, in the *Lancet*, Dec. 1882, p. 977, in remarking on the increased facilities afforded in modern times for recognising lesions of the osseous and articular structures in locomotor ataxy, records a case of a man, aged 40, who fractured his right femur spontaneously whilst taking off his boot. The fracture united, so that the patient could walk upon crutches, without any splint, about ten weeks after the accident. But at this time he incautiously placed his body-weight on the injured leg and refractured the femur. On examination the shaft of the injured femur was found to be immensely increased in size, and on inquiry into the patient's history it was found that he had suffered for some six years from many symptoms of locomotor ataxy, and it was the discovery of some of these symptoms saved the patient from having his thigh amputated for malignant disease of the bone. After about three months the fracture had united and the limb was diminished in size. Mr. Williams also draws attention to another case, in which there was a large, irregular, bony outgrowth from the hip joint in a man suffering from incontinence of urine, and in whom the symptoms would have been put down to rheumatoid arthritis, had not some symptoms of ataxy been discovered.

267. *Brown on Non-traumatic Extraperitoneal Rupture of the Bladder.*—Dr. John Brown, in *Brit. Med. Jour.*, Dec. 1882, p. 1298, mentions a case in which probably a chronic abscess, in front of the lower part of the bladder, opened into this viscus. Urine was extravasated upwards behind the abdominal muscles, between them and the transversalis fascia and peritoneum as high as the umbilicus, and then appeared in the superficial subcutaneous tissue between the umbilicus and pubes. After some days a superficial swelling, presenting fluctuation, appeared above the pubes, into which an incision was made, two and a half inches below the umbilicus; from this urine drained freely for six days. An india-rubber catheter being retained in the bladder, there was immediate cessation of the flow from the incision and relief to the feverish symptoms from which the patient suffered. Whenever the catheter became blocked

the feverish symptoms returned, also urine flowed from incision, and disappeared when the catheter was cleared. No sloughs or suppuration followed in the track of the extravasated urine, and a fall of temperature so immediately followed the drain by the catheter, that it was thought the pyrexia was caused by the tension which the urine produced in the distended tissues, and not by putrefactive changes.

268. *Treves on Perforating Ulcer of the Foot, and Progressive Locomotor Ataxy.*—Mr. Fred. Treves, in the *Lancet*, Oct. 1882, p. 653, details a case bearing on a paper read at the International Medical Congress, 1881, on the 'direct connection' between perforating ulcer of the foot and locomotor ataxy. Mr. Treves's patient was a woman, aged 39, who suffered from a perforating ulcer of the left foot, above the head of the metatarsal bone of the second toe, which necessitated a Chopart's amputation, the stump healing perfectly; but after some months another ulcer developed on the right foot, and a corn developed on the stump. This suppurated, leaving a callous ulcer on the most prominent portion of the stump. Some weeks afterwards, this patient developed marked symptoms of progressive locomotor ataxy. Mr. Treves concludes by remarking that this 'perforating ulcer' is a purely local affection, produced purely by local causes, which causes would act with increased vigour upon a part whose vitality is in any way impaired, but that such impairment is not of necessity dependent upon disease or degeneration of the supplying nerves. Exception is also taken to the name applied to the sore, since it does not seem to really perforate the foot in any ordinary case.

269. *Thornton on Mesenteric and Omental Cysts.*—Mr. Knowsley Thornton, in the *Brit. Med. Jour.*, Dec. 1882, p. 1242, in referring to a paper on this subject by Mr. Spencer Wells, at p. 1138, gives the notes of a case on which he had operated. A tumour existed in the abdomen of a female, aged 38. Its nature was doubtful, but it was supposed to be connected with the left broad ligament. It contained fluid, and was expected to be a cyst, or else an encysted collection of fluid among the intestines, omentum, and mesentery. An operation was determined upon, and a thin cyst was found firmly adhering to the parietal peritoneum and omentum. A broad vascular pedicle was also discovered, connecting it to the mesentery of a portion of small intestine, and, besides being adherent to the intestines in several places, there was a broad membranous band to the left broad ligament; the left ovary and tube were adherent to a fringe of solid growths along the lower border of the cyst; the left broad ligament was transfixed, and the ovary and tube removed with the tumour. The patient recovered, but had a severe attack of green vomit, which almost killed her, about ten days after the operation. During ovariectomy, Mr. Thornton says, he has removed cysts from the omentum in two cases, notes of which he gives.

270. *Sympton on Traumatic Aneurism of the Facial Artery.*—Mr. Sympton, in the *Brit. Med. Jour.*, Dec. 1882, p. 1296, gives an account of a case in which he cured a traumatic aneurism of the facial artery by means of passing a hair-pin beneath the artery at its entrance into and exit from the sac of the aneurism, and then placing a figure-of-8 ligature. There was no scar left, and only a little thickening in the former site of the sac.

RICHARD NEALE, M.D.

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

271. BIANCHI.—Convallaria in Therapeutics. (*Gazz. degli Ospitali*, Jan. 10 and 14, 1883.)

272. MORSELLI.—Experimental Researches concerning the Hypnotic and Sedative Action of Paraldehyde in Mental Affections. (*Gazz. degli Ospitali*, Jan. 1883, Nos. 4, 5, and 6, and *Riv. Sper. di Fren. e di Med. Leg.*, 1882, Fasc. iii.)

273. MORSELLI AND BUCCOLA.—Experimental Researches on the Physiological and Therapeutical Actions of Cocain. (*Riv. Sper. di Fren. e di Med. Leg.*, 1882, Fasc. iii.)

274. CLEMENS.—The Treatment of Diabetes. (*Phil. Med. Times*, Dec. 2, 1882.)

275. Manufacture of 'Cod Oil' in America. (*Phil. Med. Times*, Dec. 2, 1882.)

276. GERRARD.—Gelsemine. (*Pharm. Jour.*, Jan. 10, 1883.)

277. JETTE.—Treatment of Prolapsus of the Rectum by Hypodermic Injections of Ergot. (*Laris Medical*.)

278. DAYEM.—Hypodermic Injection of Ether in Threatened Death from Hemorrhage.

279. KORCZYNSKI.—Nitro-glycerine as a Therapeutic Agent.

280. BERT AND REGNARD.—On the Influence of Oxygenated Water on Virus and Venom.

281. BOUTMY AND FOUCHER.—Preparation of Nitro-glycerine.

282. VIGIER.—Mercurial Glycerite. (*Gaz. Hebdomadaire de Médecine*.)

ART. 271. *Bianchi on Convallaria.*—Dr. Bianchi (*Gazz. degli Ospitali*, Jan. 1883) gives a tolerably full account of present and former views regarding this drug. Upwards of a hundred years ago preparations of *convallaria majalis*, or lily of the valley, were in use for a variety of ailments; and now, after long neglect, they are again coming into favour, especially in France and in Russia. Its physiological actions and therapeutical uses are almost identical with those of digitalis. Sometimes, however, it is found to answer where digitalis has failed. It is used in diseases of the heart, nervous and organic. It is said also to deepen respiration, and to render it easier. It is therefore valuable in asthma, whether cardiac or emphysematous; for this purpose, iodide of potassium increases its efficacy. It has a well-marked diuretic action. It has no unpleasant effect either on the digestive or on the nervous system. Owing to the resin the drug contains, the urine becomes turbid with nitric acid. If the urine be first agitated with ether, the acid does not affect it.

272. *Morselli on Paraldehyde.*—Professor Morselli details (*Gazz. degli Ospitali*, Jan. 1883, Nos. 4, 5, and 6, and *Riv. Sper. di Fren. e di Med. Leg.*, 1882, Fasc. iii.) his experiments with this drug. Paraldehyde is a polymeric modification of aldehyde. Its formula is $C_6H_{12}O_3$. It is a colourless liquid, of acid taste, somewhat resembling dilute acetic acid. It has a very volatile odour, like chloroform. It is soluble in eight volumes of cold water; less soluble in hot water. Its chief physiological action is on the cerebral hemispheres; then on the medulla oblongata and spinal cord. In strong doses, according to Cervello, who first experimented with it, it paralyzes the respiratory centre; the cardiac innervation remaining unaffected. The reflex action of the cord is diminished by medium doses, and abolished

by large ones. Professor Morselli has administered the drug on 350 occasions, most of the patients being insane. The most important therapeutical action of paraldehyde is its hypnotic effect. It produces, very quickly after it is taken, a quiet and tranquil sleep, in all points resembling natural sleep. In several important respects it differs from chloral. It increases the force and diminishes the frequency (from 8 to 15 beats) of the heart's action. It never gives rise to any unpleasant nervous symptoms, such as headache, sense of heaviness in the head, or malaise. It never interferes with digestion; on the contrary, it generally appears to sharpen the appetite. Moreover, it acts as a stimulant to the kidneys. Demarquay has observed a like diuretic effect with chloral. Respiration is modified, as in natural sleep, becoming less frequent, more regular, and more profound. The skin is not in any way affected, nor are the bowels. The only drawbacks to its action are that its acidity frequently irritates the fauces for a short time after it is taken, and a few patients complain of the persistence of the taste. In only about 8 per cent. of the cases did it fail to produce sleep. In most of these cases it was given in small and broken doses, and though it did not procure sleep it induced a condition of restful quiet. Professor Morselli recommends paraldehyde, not merely in the insomnia of the various mental disorders, but also in the sleeplessness of other diseases, and in the wakefulness that is apt to follow severe mental occupation. The ordinary dose is about 3 grammes, but 4 or even 5 grammes may be given. One patient, a young woman, exhibited marked susceptibility to the drug; 1½ grammes producing a sleep of several hours' duration.

273. *Morselli and Bucola on Cocain.*—According to the authors (*Riv. Sper. di Fren. e di Med. Leg.*), cocain has a mydriatic action on the pupil; generally it raises the temperature slightly; quickens respiration, and renders it more superficial; and increases the frequency of the pulse. These effects last for about an hour. After the prolonged use of the drug sleep becomes longer and more profound. The authors have used cocain in cases of simple melancholia, and in cases of melancholia with stupor. It does not appear to have any direct effect on the psychical functions. Indirectly, however, it seems to do good, insomnia becoming less obstinate, speech more steady, the movements more free, and nutrition better.

WILLIAM R. HUGGARD, M.D.

274. *Clemens on the Treatment of Diabetes.*—In the *Phil. Med. Times* of Dec. 2, 1882, an account is given of what is there termed 'Clemens' Treatment of Diabetes.' It was discovered, we are told, by Dr. Theodor Clemens of Frankfort-on-Main, and is said to be the most successful treatment of modern times. It consists in the administration of 'brom-arsen-liquor,' 'a chemical union of arsenious acid and bromine dissolved in water and glycerine, in such a manner that two drops represent the twenty-fourth part of a grain of arsenite of bromine.' The dose of this is two drops three times a day, gradually increased to nine and twelve drops a day, each dose to be given in a wineglassful of water immediately after a meal, which should consist mainly of meat. The favourable influence of the treatment is soon apparent; the thirst and diuresis are diminished, and synchronously the percentage of sugar decreases. The dose is to be gradually increased until the sugar in the urine has entirely disappeared. Electricity may also be employed as a curative agent. It is

recommended that 'electrostatic currents of sparks and shocks should be passed through the liver and other parts of the body.' Favourable results were obtained by employing induced currents in the direction from the back of the neck to the liver 'so that the latter was set into light motion.' [The paper is suggestive rather than convincing.—*Ref.*]

275. *The Manufacture of 'Cod-Oil' in America.*—In the *Philadelphia Medical Times* of Dec. 2, 1882, an interesting and amusing account is given of 'how they make cod-oil in Swampscott.' Swampscott, it appears, is a little town on the coast of Massachusetts, not far from Lynn, and it is situated near the head of a bay between Nahant and Salem. Nine miles from this is a place called the 'rocks,' where in winter the cod come in shoals to spawn. Every night, wet or fine, the little fleet puts off so as to arrive at the rocks by five in the morning. When day begins to dawn the 'dories' anchor near their respective schooners, each boat with its single occupant, who is soon hard at work 'robbing the sea of its life.' About three in the afternoon the signal is given to come aboard, the dories hasten to their 'floating castles,' the 'catches' are thrown into the vessels with pitchforks, and sail is made for home. During the passage the fish are 'guttled,' the entrails being cast into the sea, and the livers (some large enough to fill a quart mug) put into baskets. When the shore is reached the livers are transferred to carts, which are quickly driven to the fish-market at Boston. They are immediately sorted, and the gall-bladders carefully removed. The great luscious flabby masses are put into a large oak tub, with which steam-pipes are connected. When the receptacle is full and closed, low-pressure steam is turned on, and for about two hours and a half the cooking process continues. Then the plugs at the bottom are knocked out, and the hot oil is run into buckets. It is now placed in butts in the 'cooling-room,' and is allowed to remain there till it solidifies. It is next poured into canvas bags, each holding four gallons. These bags are placed regularly upon a heavy oak table, furnished with grooves for carrying off liquid, and on this is laid a slab, then more canvas bags, and so on, layer after layer, until about eighty gallons are piled up. A ton of pig iron is placed on the top slab of oak, and the oil soon begins to run out. In about twelve hours the flow ceases, and the structure is taken to pieces. Inside the bags is found a yellow mass like butter, but as hard as tallow, and this, on examination, is found to be composed of stearin with portions of liver and connective tissue. This is sent to the soap-maker, whilst the oil finds a ready sale for medicinal purposes.

276. *Gerrard on Gelsemine.*—Mr. A. W. Gerrard, of University College Hospital, has succeeded (*Pharm. Jour.*, Jan. 10, 1883) in obtaining gelsemine and several of its salts in a state of absolute purity. Five years ago, he prepared a small quantity of gelsemine for physiological purposes, but found that the published processes for its extraction would not yield a product at all approaching purity, as it was always more or less coloured. He also observed that traces of gelseminic acid persistently adhered to the alkaloid, as evidenced by the fluorescence of the latter in the presence of alkalis. He was satisfied from his observations that, if gelsemine could be obtained in a sufficient state of purity, its salts could be made to crystallise. Subsequently he prepared a small quantity of the alkaloid, and obtained one of its salts

in microscopic crystals. Recently he has formulated a method of extraction which yields excellent results. The powdered root is exhausted with alcohol, which leaves after distillation a soft extract, separating on standing into two layers. The superstratum, green in colour and having the appearance of an oleo-resin, is removed. The substratum, which contains the alkaloid, is diluted with water until it ceases to precipitate resin, and leaves a clear bright brown solution, which is evaporated at a temperature below 60°C . (140°F .), treated with ammonia in excess, and thoroughly washed with ether. The ether solution now containing the gelsemine, and fluorescent from the presence of gelseminic acid, is decanted and exposed a short time to allow the excess of ammonia to escape. Hydrochloric acid is next added with agitation until the fluorescence is destroyed. The hydrochloride of gelsemine separates from the ether, forming a pale yellow amorphous precipitate. Gelsemine is a brittle, transparent solid, crystallising with difficulty from alcohol. Boiling water sparingly dissolves it, the solution on cooling becoming faintly turbid from separation of the alkaloid. Its formula is ascertained to be $\text{C}_{12}\text{H}_{11}\text{NO}_6$. The hydrochloride, hydrobromide, sulphate, and nitrate have been obtained in crystals. The hydrochloride is a moderately soluble salt, separating from water as an apparently amorphous powder, but consisting really of small granular crystals. It is sparingly soluble in cold, more soluble in hot alcohol, and from the latter it separates slowly in prismatic crystals. The hydrobromide crystallises more readily from water and alcohol than the hydrochloride, forming prisms. The sulphate and nitrate are freely soluble in water and alcohol, and crystallise indifferently on spontaneous evaporation. Mr. Tweedy has investigated the action of pure gelsemine on the eye, and reports that, though less irritating and more prompt in its action than the earlier preparations, he could not obtain distinct paralysis of accommodation, such as follows the institution of atropine. The dilations of the pupil were preceded by a brief stage of contraction, accompanied by a zone of ciliary injection.

WILLIAM MURRELL, M.D.

277. *Jette on the Treatment of Prolapsus of the Rectum by Hypodermic Injections of Ergot.*—The *Paris Médical* quotes from M. Jette's thesis some interesting facts concerning this mode of treating prolapsus of the rectum, originated by M. Vidal, of the Saint-Louis Hospital. It is essential that the solution of ergot should be pure. The injection is made with a Pravaz's syringe at about one-fifth of an inch from the anus, parallel to the intestinal wall. The needle should penetrate one to two or even four centimetres deep, that is to say, as far as the fibres of the sphincter. M. Vidal advises that only one injection should be made instead of two or three in succession at different places, a method sometimes adopted in the belief that pain is thus avoided. M. Vidal believes that the pain is equally great, and unnecessarily repeated. He recommends that the injection be made very slowly as the best means of lessening the pain. M. Vidal has injected a hemorrhoidal tumour sometimes from its cutaneous, sometimes from its mucous, surface; in both cases the pain was great, the tumour became brown and tense, but was very favourably modified without the formation of an abscess. The duration of the treatment varies from days to weeks. It is not affected by the solution used, the quantity injected, or the intervals between the injection. In order that the

cure should be permanent, it is advisable to continue the injections for a short time after apparent recovery. Dr. O. Gorgues, commenting (*Jour. de Méd. de Paris*) on M. Vidal's mode of treatment, expresses a belief that it could only be adopted in treating adults, with a view to obviate operative treatment; and mentions that electrolysis has been used successfully in some instances by introducing the needles of the electrodes into the substance of the fibres of the sphincter.

278. *Hayem on the Utility of Hypodermic Injections of Ether in Cases of Imminent Death from Hemorrhage.*—Prof. Hayem, in a communication read at the Paris Academy of Medicine, states that he extracted from a dog a quantity of blood so considerable that the loss of it produced tetanic convulsions. Injections of ether were simply powerless; the animal did not manifest the slightest return of consciousness; but transfusion of blood, containing all its constituent parts, resulted in complete resuscitation. If only that quantity of blood be removed which results in placing the animal in a condition between life and death (one-nineteenth of the weight of the body) hypodermic injections of ether are negative in their results, but transfusion of blood in a perfect state renders recovery certain. In some cases it ensues when the blood remaining in the animal's organism is diluted with serum taken from an animal of the same species. M. Hayem considers that these observations indicate that it is incorrect to say that transfusion of blood is useless, and should give place to hypodermic injections of ether. Ether as a stimulant increases the heart's action, and greatly accelerates its beats, but neither raises blood-pressure nor increases rectal temperature.

279. *Korczynski on Nitro-glycerine as a Therapeutical Agent.*—The author uses one to six drops of a one per cent. solution of nitro-glycerine. The physiological results are centred in the circulation and nerve-centres (*Wien. Med. Wochenschr.*, 1882, No. 6; and *Union Méd.*, 1882, No. 155). Two or three minutes after the drug is administered the heart's impulse is increased, the *bruits* are stronger, the pulse is eight to sixteen beats more rapid; at the same time arterial tension is lower, and palpitation is scarcely detected. These symptoms persist about three-quarters of an hour, and then the normal condition is slowly established. Two drops of the solution produce a violent headache, and the face becomes flushed. Six drops produce photophobia, painful throbbing in the head, synchronous with each pulsation; buzzing of the ears ensues at the end of each inspiration; the urine does not present any change, either in composition or quantity. Therapeutical researches made on thirty-five patients resulted in eighteen positive results, twelve negative, five doubtful. An ordinary dose is from one to four drops of the one per cent. solution, very rarely from ten to fifteen. One patient took of his own accord thirty drops, a smaller dose having failed to calm the attacks of angina pectoris from which he suffered. Nitro-glycerine, administered at the beginning of an attack of asthma, almost always arrests it, and is more successful when asthma is accompanied by emphysema than in nervous asthma without lesion. In angina pectoris, if the attacks be not arrested, they are greatly moderated by the use of nitro-glycerine, and its action is equally beneficial whatever may be the etiology, whether organic lesion of the heart and principal vessels, or an essential neurosis. Nitro-glycerine has also been observed to

prevent attacks. Its effect on other affections (chorea, diabetes, mercurial palsy) is less positive.

280. *Bert and Regnard on the Influence of Oxygenated Water on Virus and Venom.*—MM. Paul Bert and Regnard, in a recent communication to the Paris Biological Society, stated that to an artificial cultivation of 'charbon' bacteria given to them by M. Pasteur they had added ten volumes of oxygenated water; and one hour after the addition was made the bacteria were killed. A guinea-pig, inoculated with the preparation of bacteria and oxygenated water, remained in its normal condition. Another, inoculated with the bacteria without the addition of oxygenated water, died in thirty-six hours. Oxygenated water does not seem to have any notable effect on vaccine lymph, but the investigators acknowledge that their experiments are too limited to warrant their arriving at any conclusion. Oxygenated water has no effect on the venom of the scorpion; after twenty-four hours' contact, it retained all its venomous properties.

281. *Boutmy and Foucher on the Preparation of Nitro-glycerine.*—Boutmy and Foucher have been awarded by the French Academy of Sciences (*Oil and Drug News*) the prize of 2,500 francs (100*l.*) for their new and safe method of the preparation of nitro-glycerine. The process consists in combining glycerine with sulphuric acid, so as to form glycerio-sulphuric acid, and decomposing the latter slowly by means of nitric acid. Two solutions are thus prepared: glycerio-sulphuric acid and sulpho-nitric acid, the latter being formed by the mixture of equal parts of sulphuric and nitric acid. These combinations give rise to the emission of a large amount of heat, which necessitates the employment of refrigerating mixtures. In finally mixing these acids in convenient proportions, a reaction is produced, which continues about twenty minutes. The nitro-glycerine is deposited at the bottom of the vessel, and may be readily collected and washed. According to the old process the reaction was rapidly accomplished, and a portion of the nitro-glycerine arose to the surface, which rendered the operation of washing difficult.

282. *Vigier on Mercurial Glycerite.*—Dr. Vigier states (*Gaz. Hebdom. de Méd.*) that medicinal agents, incorporated with fatty substances, are absorbed to only a limited extent. Mercurial ointment, however, forms a noteworthy exception to this general rule. Drugs incorporated with glycerine are, according to Vigier, not at all absorbed. He considers that this property of glycerine is due to its not wetting the skin. Experiments on himself and his pupils have proven that the active substance thus incorporated never produces its constitutional effects. It is for this reason that he recommends glycerine instead of lard in mercurial preparations for scabies, pediculi, &c., as such a mixture has an antiparasitic effect without being absorbed. The following glycerite, notwithstanding the caustic nature of its principal ingredient, he says, may be used without danger:—Bichloride of mercury, ʒjss.; glycerine, ʒiij.

THE BRAIN OF GAMBETTA.—The *Revue d'Anthropologie* announces that not any of the journals have stated the real weight of Gambetta's brain, which has been deposited at the laboratory of the Anthropological School. M. Matthias Duval will give a detailed description of it at a future time; its general aspect is what was foreseen to be probable.

MEDICINE.

RECENT PAPERS.

283. PASSERINI.—The Connection between Abdominal Diseases and Derangements of the Right Side of the Heart. (*Gazz. degli Ospitali*, Jan. 3, 1883.)

284. GONZALEZ.—Intermittent Fever simulating Asiatic Cholera. (*El Siglo Medico*.)

285. KISPERT.—Variola without Eruption. (*El Genio Medico-Quirurgico*).

ART. 283. *Passerini on the Connection between Diseases of the Abdomen and of the Right Heart.*—Dr. Passerini, in a short but weighty article (*Gazz. degli Ospitali*, Jan. 3) gives his views on this subject. Potain in 1878 was the first to call attention to the fact that affections of the digestive apparatus may give rise to disease of the right side of the heart. With the exception of Tessier and Frank, who wrote in 1879 and 1880 respectively, no other author has written on this relationship. The author relates three cases of tricuspid insufficiency due indirectly to peritoneal effusion. Auscultation revealed at the tricuspid orifice a prolonged first sound, and a regurgitant murmur. The second sound was accentuated, more especially over the pulmonary orifice. When the fluid in the peritoneum was removed, there was marked improvement in the character of the heart-sounds. The mode in which the derangement of the heart is effected is regarded as purely mechanical. Owing to the compression, there is in the abdomen a venous ischaemia, whereby in the thorax there is induced a venous hyperaemia. The right side of the heart thus becomes engorged. Moreover, owing to the pressure from below, the diaphragm becomes fixed; the lungs cannot expand freely and express their contained blood. The consequence is that the flow of blood from the pulmonary arteries through the lungs is obstructed. Thus the right heart is exposed to a twofold strain: the greater pressure of the incoming blood from the thoracic venous hyperaemia; and the obstruction to the outgoing blood from the inefficient expansion of the lungs. In confirmation of these views, the author brings forward other facts. He quotes the observation of Larcher (1859) and of Depaul (1880), frequently verified by himself, that in advanced pregnancy the first sound over the pulmonary orifice becomes accentuated, and that sometimes the first sound over the base of the xiphoid cartilage becomes prolonged and blowing. The same phenomena are observed in cases of ovarian cysts and of other large abdominal tumours. Moreover, it is possible in perfectly healthy persons to induce a well-marked accentuation of the sound at the pulmonary orifice by compressing the abdomen, or even by simply causing the subject to hold his breath. In a practical point of view, it would often be of the greatest importance to know whether the abdominal affection was the cause of the heart-mischief. WILLIAM R. HUGGARD, M.D.

284. *Gonzalez on Intermittent Fever Simulating Asiatic Cholera.*—A case is reported by Dr. Gonzalez (*El Siglo Medico*) of an attack of intermittent fever, in which the prominent features were those of Asiatic cholera in its most pronounced form. The patient had suffered from attacks of marsh intermittent ague of a mild type for the past two years. He was 21 years old, and otherwise

healthy. He appears to have been seen soon after he was attacked, and the onset of the disease was sudden. The patient presented all the symptoms of collapse, a subnormal temperature (96°), cyanosis, coldness of extremities, paralysis of muscles, and stupor. The skin was clammy, the respiration frequent and laboured. The urine was abundant and passed unconsciously, as was also an extremely copious serous diarrhoea. The diagnosis of ague as opposed to cholera was made, in the first place because the time of year was that at which ague was on the increase, and, although there had been some cases of cholera, none had occurred since the patient had been in the town; secondly, because he, being a soldier, had just landed from a sea-voyage in a transport, where the most unsanitary conditions prevailed, and these conditions were well calculated to promote an outburst of marsh poisoning which he had previously acquired; and thirdly, because the absence of prodromata, the abundant secretion of urine, the absence of spasms, the loss of consciousness from the commencement, and the character of the respiration, all pointed to an intermittent fever rather than to cholera poisoning. The treatment accordingly consisted of quinine in physiological doses, nutrient enemata, and alcohol, and the result justified the diagnosis. At the commencement 22½ grains of sulphate of quinine were injected into the arms hypodermically, and 15 grains were added to a nutrient enema. This latter, with the same quantity of quinine, was repeated in an hour and a half, while the patient was allowed to drink freely lemonade with a few drops of tincture of digitalis added. In four hours the prominent symptoms of collapse had disappeared, and during the next day there was marked alleviation of the symptoms. On the afternoon of the third day there occurred a relapse. (The quinine treatment had been continued but in smaller doses.) Thirty-one grains of quinine were then injected hypodermically, and a similar quantity added to an enema. The symptoms were completely relieved in two hours, though at their outset they appeared even more violent than in the first attack. The subsequent course of the illness would appear to have been favourable. The peculiar manifestation of ague poison in this form, and the amount of quinine given, with the manner of giving it (viz. by injection) and its rapid action, are considered by Dr. Gonzalez worthy of attention.

285. *Kispert on Small-pox without Eruption.*—A case of *variola sine exanthemate* is reported as occurring in the practice of Dr. Kispert (*El Genio Medico-Quirurgico*), and the diagnosis appears to be founded on sufficient grounds. The patient was an adult, re-vaccinated, and of a feeble habit. Pyrexia began with a severe rigor, and continued for six days. The highest temperature was 104.3. There was typical pain in the back, and headache in the beginning, with repeated shiverings, &c. Some acute exanthema, probably variola, was diagnosed at the onset of the attack from its prevalence in the town, and the character of the pain and pyrexia; but throughout the fever the most careful search could only discover a very few small papules of an insignificant appearance, disappearing on pressure, which did not become vesicular, and which went away in a day or two without any mark being left. Although the attack was severe, recovery was rapid; but after the proper time for incubation had elapsed the husband of the patient—who had nursed her throughout, and had himself been completely iso-

lated from any source of infection elsewhere—developed typical confluent small-pox of a very severe type. It is not stated if he was vaccinated.

WALTER PYE.

OBSTETRICS AND GYNÆCOLOGY.

RECENT PAPERS.

286. BREUS, KARL.—On the Treatment of Puerperal Eclampsia. (*Archiv für Gynäkologie*, Vol. xix., Pt. 2, 1882.)

287. RODENSTEIN, L. A.—Significance of Prolonged Gestation. (*New York Med. Jour.*, May 1882.)

288. JORISSEN, A.—A new Sign of Pregnancy. (*Archives de Toxicologie*, 1882.)

289. GAUNT.—The Treatment of Puerperal Mastitis by Iodide of Lead Ointment. (*Amer. Jour. of Obstetrics*.)

290. SINCLAIR.—Superinvolution of the Uterus. (*Boston Med. and Surg. Jour.*, Dec. 21, 1882.)

ART. 286. *Breus on Puerperal Eclampsia.*—Six cases of puerperal eclampsia, treated by diaphoresis and with but one fatality, have been reported by Dr. Karl Breus. The patient is immersed up to her neck in a bath at a temperature of 100.4° F., and the water is then further heated to as high a degree as bearable. The patient's stay in the bath should be about half an hour, or until a copious diaphoresis commences on the face and head. She is then packed in a sheet, and several warm thick blankets wound round her; the face being alone uncovered, to prevent any impediment to respiration. These may be removed in three or four hours. Thirst may be relieved by moderate use of soda-water. On the reappearance of coma or convulsions, the bath and pack may be again resorted to. Dr. Breus believes hydrate of chloral given in enemata to be a valuable adjunct to the bath. In the first two reported cases the convulsions occurred before delivery—in the first at the ninth and in the second at the sixth month. The baths were resorted to with the result that the convulsions ceased, both patients being delivered of living children. Convulsions occurred both during labour and after delivery in the third case, and towards the end of labour in the fourth case; but free use of the baths resulted in the entire recovery of both patients. The fifth case presented an untoward complication, in the shape of cirrhosis of the liver. The patient was comatose when admitted into the hospital, and died on the third day. In the sixth case the convulsions did not appear until the twenty-third day after delivery, but the patient made a good recovery.

287. *Rodenstein on the Significance of Prolonged Gestation.*—Four interesting cases are reported by Dr. Louis A. Rodenstein, in which the normal period of gestation was much exceeded. He supports his belief in the possibility of prolonged gestation by allusion to several authenticated cases reported by trustworthy observers. No attempt is made to limit the prolongation, which may vary from three days to beyond five months, as reported by Professor Meigs. Uterine gestation goes on for nine months, and ceases with the birth of the child. Should labour remain in abeyance, Dr. Rodenstein offers no explanation of the phenomenon, but thinks that the child remains inert, *in utero*, and that its growth ceases. Were it not so, serious complications would arise during delivery, owing to the overgrowth of the fœtus. In the cases mentioned, the size of the child was

normal at the termination of the prolonged gestation.

288. *Jorissen on a New Sign of Pregnancy.*—Several years ago Graves demonstrated the fact that in cardiac hypertrophy, whatever the position of the body, the radial pulse remains constant. Jorissen accepts this theory, and, assuming that cardiac hypertrophy exists in pregnancy, he states that whereas in health a change from the upright to the horizontal position entails a diminution of from ten to twenty beats in the radial pulse, no such alteration is observed in pregnancy. He recommends that the pulse be taken very carefully while the patient is standing, then sitting, and finally reclining. By this means, pregnancy has been diagnosed as early as the first month, the only other existing sign having been amenorrhœa.

JOHN PHILLIPS, M.B.

289. *Gaunt on the Treatment of Puerperal Mastitis by Iodide of Lead Ointment.*—In the *Amer. Jour. of Obstetrics*, Dr. Thomas T. Gaunt expresses his disappointment at the ill-success of belladonna in checking the secretion of milk, but reports good effects from iodide of lead. He says:—The breast being thoroughly dried and perfectly cleansed, we smear its surface with the official ointment of the iodide of lead, and then gently rub it in until a considerable quantity is absorbed. Soak a piece of sheet-lint, of a size sufficient to cover the breast, in the following solution—Acetate of lead, from 5ij to ʒss to the pint of a one-to-four solution of alcohol. If we desire a more elegant preparation, eau de Cologne may be substituted. If there be much pain, it is often well to apply an ice-bladder upon the sheet-lint covering the breast. The lint should be frequently dipped in the lead lotion. The following phenomena will present themselves. First, there will be a cessation of pain, fulness, and uneasy feeling of distention. It is common for the patient, who has been exhausted by pain and consequent loss of sleep, to fall into a refreshing slumber even after the application is made. In the course of three or four hours, the breasts may be completely emptied by an experienced hand. The ointment should be used as a lubricant during the manipulation. By applying the iodide freely twice or thrice daily, the secretion will be gone in less than one week as a rule. The pivotal point in the treatment is the use of this ointment, the evaporating lotion and cold being only adjuncts. I have proved by repeated trials that when applied alone it is capable of exerting an absolute control over the secretion. I believe we here invoke a specific action from the lead iodide. A point of considerable moment is the partial anesthesia it is capable of inducing, which thus enables us to empty the glands, where before even slight pressure was badly borne. Its action without doubt extends to the epithelial cells, and inhibits their secretory activity; as is seen in its action, in cases like the above, in causing the drying up of the secretion.

290. *Sinclair on Superinvolution of the Uterus.*—Dr. Sinclair, at a meeting of the Boston Obstetrical Society (*Boston Med. and Surg. Journal*, Dec. 21, 1882), reported a case of what he regarded as uterine superinvolution. The woman was 26 years old, and, after the third child-birth, she ceased to menstruate. Although plump and well she was very nervous. There had been no menstruation for a year when she consulted Dr. Sinclair, who found an extremely small infantile uterus. This would not

admit a small uterine sound, but a probe could be passed up two and a half inches. She is now 36 years old. A year ago the husband had called to say that his wife was in charge of a physician, who said that the trouble was due to a ruptured perinæum and lacerated cervix. Dr. Sinclair claimed an examination in his own defence, and found no laceration whatever.

PATHOLOGY.

RECENT PAPERS.

291. IVANOFF, S. A.—A Contribution to the Study of Cerebral Changes in Rabies and Uremia. (*Pratch*, 1882, No. 15, pp. 233-5.)

292. ATKINSON.—Cerebral Abscess communicating with an Abscess in the Pharynx, and complicated with Tumour of the Brain. (*Brit. Med. Jour.*, Dec. 1882, p. 1093.)

293. MANSON.—Lymph-Scrotum associated with Filariæ and other Parasites. (*Lancet*, Oct. 1882, p. 616.)

294. THOMAS.—The Life-History of the Liver-Fluke. (*Lancet*, Nov. 1882, p. 849.)

295. BURGER.—The Fungus of Whooping-Cough. (*Berl. Klin. Wochensh.*, Jan. 1, 1883.)

296. BALOGH.—The Tubercle-Bacillus. (*Wien. Med. Wochensh.*, No. 51, 1882.)

297. VALLAT.—Hyaline or Fibrinous Degeneration. (*Virchow's Archiv*, Band lxxix.)

298. STEVEN.—Tuberculosis of the Uterus and Fallopian Tubes. (*Glasgow Med. Jour.*, Jan. 1883.)

299. PARADA.—Anomalous Development of Parts about the Branchial Clefts. (*El Siglo Médico*, Jan. 14.)

300. TIZZONI.—Experimental Study of the Repair and New Formation of the Liver. (*Gazz. degli Ospitali*, Jan. 21, 1883.)

301. REED.—The Histogenesis of Carcinoma. (*Philad. Med. Times*.)

302. LANCEREAUX.—The Varieties of Cirrhosis of the Liver. (*Revue de Méd.*, July and October.)

303. FRERICHs.—Sudden Death and Coma in Diabetes. (*Wien. Med. Wochensh.*, No. 25, 1882.)

304. SABOURIN.—Obliteration of the Hepatic Veins in Cirrhosis of the Liver. (*Revue de Méd.*, Aug. 1882.)

305. HUET.—On Fibroma of the Renal Capsule.

ART 291. *Ivanoff on Cerebral Changes in Rabies and Uremia.*—Following the suggestion of Professor A. A. Raievsky, of St. Petersburg, Dr. S. A. Ivanoff (*Pratch*, 1882, No. 15) undertook a comparative examination of the brain in healthy and rabid dogs. In regard to rabietic brains, he arrived at results which closely resembled those described by Dr. Gowers, Professor Kolesnikoff (see the LONDON MEDICAL RECORD, May 1882, p. 198), and others. That is, he found—(1) leucocytic infiltration of the neuroglia; (2) pericellular and perivascular accumulations of leucocytes, which, in the base of the brain, formed miliary granulation-nodules similar to those detected by Dr. Gowers in the medulla oblongata in hydrophobia in man (and which, also, bore a close likeness to those found by Professors Ivanofsky and Popoff in the grey matter in typhus fever); and (3) diaphanous masses or hyaloid flakes on the walls of the blood-vessels. But, while Kolesnikoff, Benedikt, Weller, &c., regard these hyaloid flakes as a specific hydrophobic or rabietic product, Dr. Ivanoff decidedly refuses to look at them in this light. For, firstly, the same diaphanous bodies were found by Professor Popoff and Dr. Stephanoff in uræmia, by Professor Vinogradoff in intermittent

fever, and by Dr. Danillo in phosphorous poisoning. Secondly, the author, like Dr. Czokor, met these flakes in the brains of healthy dogs. In older animals they were invariably present in greater numbers than in younger; and they were invariably absent in puppies under six months, in healthy and diseased alike. Microscopical examination of the brains in three young puppies, in which uræmia had been artificially produced, gave negative results. The author arrives at the general conclusion, that the hyaloid scales in the brains of dogs have no pathological character whatever.

V. IDELSON, M.D.

295. *Atkinson on a Case of Cerebral Abscess, communicating with an Abscess in the Pharynx, and complicated with a Tumour of the Brain.*—Mr. J. M. Atkinson, in the *Brit. Med. Jour.*, Dec. 1882, p. 1093, relates the case of a porter, aged 45, who for some five or six years had been subject to sudden attacks of giddiness, accompanied with severe pains in the head. On May 16, 1881, he was admitted into St. Mary Abbot's Infirmary, complaining of great weakness, accompanied with a constant feeling of giddiness and pain across forehead. Nothing could be detected by examination. On May 21 he had a severe rigor, and speech became thick, but he had no loss of power in any of his limbs and no signs of paralysis. An abscess now pointed in the mouth, and an incision was made in the palate, evacuating about two ounces of very fetid pus; there were occasional rigors, with protrusion of both eyeballs, and great restlessness. The patient gradually became comatose, and died on May 28, the temperature shortly after death being 105° 8' F. The *post mortem* examination showed a tumour attached to the dura mater, a little anterior to the sella Turcica. It was not attached to the brain at all, but had caused a distinct depression in both frontal lobes on their under surface. The middle fossa of the base of the skull was seen to be full of pus, and a large abscess was exposed in the left temporo-sphenoidal lobe. On further examination, both ophthalmic veins were blocked with clot, and the cavernous sinuses were full of pus. In the anterior triangular space of the neck on the right side a large abscess had formed, which was found to communicate along the carotid canal with the pus in the skull. The case is interesting, as it shows how few symptoms were present for five or six years during the growth of the tumour.

296. *Manson on Lymph-Scrotum, associated with Filariæ and other Parasites.*—Dr. Patrick Manson in the *Lancet*, Oct. 1882, p. 616, gives some notes on a case of lymph-scrotum. The patient, aged 34, consulted him for a lymphous discharge from his scrotum. Eight years previously there had been inflammation and abscesses of this part, and for six years he had suffered from an enlargement of the scrotum with an intermittent discharge. Ten months previously, he had severe attacks of ague. The scrotal enlargement became as large as a man's head, and the discharge of lymph constant, so that it was considered necessary to remove the tumour, which was done, but the patient died eighteen days afterwards of dysentery and exhaustion. At the *post mortem* examination, the whole mucous membrane of the great intestine was found to be covered with ulcers. A number of parasites, twelve in all, were found lying in the subperitoneal fascia, about the iliac fossæ and behind the kidneys, and others elsewhere; they were long taper-like animals, twelve to fourteen inches in length, one-eighth of an inch broad, and

about one sixty-fourth of an inch in thickness. They were dead-white, and moved distinctly when removed from the body. They were examined by Dr. Cobbold, who found they were entirely new to science, and named them '*Ligula Mansonii*.' The blood of the patient was also examined; that from the lungs and the spleen contained but a few filariæ; while the juices, expressed from the glands in the left groin, contained a considerable number of filariæ.

292. *Thomas on the Life-History of the Liver-Fluke.*—Mr. Thomas, M.A., in the *Lancet*, Nov. 1882, p. 849, describes his researches on the liver-fluke. For a long time he searched in vain to find the particular mollusc supposed to harbour the fluke in its larval form, but at length found in the small *limneus truncatulus*, a cylindrical worm or redia containing cercariæ. This snail is found close to roots of the grass, generally in flooded meadows. Mr. Thomas describes the result of his infection experiments, and concludes by pointing out that the real preventive of the disease is salt, a small quantity of which will not only kill the larva of the fluke, but the *limneus* also. Many other animals including man were liable to be infested by flukes, and in the case of man water-cresses appear to be a very probable source of infection, a danger very readily avoided by washing the plants in salt and water previously to eating them.

RICHD. NEALE, M.D.

293. *Burger on the Whooping-Cough Fungus.*—Dr. Carl Burger, of Bonn (*Berlin Klin. Wochensh.*, Jan. 1, 1883), has found in the sputa of patients with whooping-cough a great number of elongated elliptical bacteria, in some places crowded together in thick masses, in others more thinly spread over the field of the microscope. Dr. Burger has examined them under magnifying powers, of 340 and 600 diameters. They are not all of the same size; the smaller are in length about double their breadth. Under still higher powers, a constriction can be seen in some, the indication of active subdivision. Frequently they are aggregated in strings and chains, or form groups of irregular forms. Dr. Burger points out that these bacteria are not to be mistaken for the *Leptothrix buccalis*, the spores of which are frequently seen in the mucus of the mouth, and have some resemblance to whooping-cough bacteria. (Figures illustrative of these organisms accompany Dr. Burger's paper.) The following conclusions as to their etiological relations are submitted. 1. This particular fungus is not present in other sputa. 2. The large quantities leave no room for doubt as to their influence. 3. Their number bears a relation to the intensity of the disease. The author hopes by further observations to bring forward still stricter evidence as regards their pathological relations.

W. B. KESTEVEN, M.D.

294. *Balogh on the Tubercle-Bacillus.*—Professor Balogh (*Wien. Med. Wochensh.*, No. 51, 1882) says he has detected a bacillus in the marshes round Pesth, which behaves very like the tubercle-bacillus. He does not regard the staining test as sufficient to distinguish these organisms. Inhalation experiments were followed by little nodular growths in the lungs, heart, and kidneys of the animals experimented on, and in these nodules bacilli could be detected by Koch's process. Inoculation of bacteria from scarlatinal urine, and from bronchitic sputa, gave rise to similar nodular growths. Professor Koryanyi found

Koch's bacillus in the sputa of a case regarded as one of pulmonary syphilis.

297. *Vallat on Hyaline or Fibrinous Degeneration.* Some years ago, Langhans drew attention to the mode of formation of certain renal hyaline tube-casts by a hyaline degeneration of epithelial casts. This form of degeneration has been recently studied by one of his pupils, Dr. Vallat (*Virchow's Archiv*, Band lxxix., p. 193). He finds it very common in tubercle and syphilis as a precursor of cheesy transformation. He regards it as closely allied to, but not identical with, lardaceous degeneration.

298. *Steven on Tuberculosis of the Uterus and Fallopian Tubes.*—Dr. J. L. Steven (*Glasgow Med. Jour.*, Jan. 1883) reports a case of primary tuberculosis of the uterus and Fallopian tubes. In the uterus and tubes the morbid changes were almost entirely limited to the lining membrane; but the disease had passed to Douglas's pouch, the rectum, lymphatic glands, &c., and there was tubercular meningitis. Tubercle-bacilli were found by Huber's method, but were rare. This method consists in immersing the sections for twelve hours or more in a solution of gentian violet in aniline oil water, of the strength of 1 to 30. The colour is then extracted with nitric acid, and the preparation mounted in the usual manner.

ROBERT SAUNDBY, M.D.

299. *Parada on Anomalous Development of Parts about the Branchial Clefts.*—An instance of anomalous development of the parts about the branchial clefts, allied to those collected by Sir James Paget, Dr. Allen Thomson, and others, is reported by Dr. Parada (*El Siglo Medico*, Jan. 14); and is the more noteworthy from the association of this condition with a persistent patency of the ductus arteriosus. The child was born at the eighth month, and presented these peculiarities about the face. The external ear was about in its right place, but extremely ill-developed; the lobule was absent, and there was no trace whatever of an external auditory canal, the ear being simply an outgrowth of the skin. But lower down on the same side there was a fleshy papilla, in front of which was the opening of a canal, up which a probe could be passed, in the direction of, and apparently into, the Eustachian tube. It was doubtful if the sense of hearing was present in the deformed side, but it was believed to be so. The child was born fairly strong, but with its growth the cyanosis due to the patent ductus arteriosus became more and more evident, and it died in two months. [This deformity of the face is evidently an irregular development of the first postaural cleft (tympano-Eustachian), which in this case had apparently closed up to too great an extent at its posterior and external part, where it should form the external meatus auditorius (round which the external ear is formed in the tissues of the edges of the cleft); while, on the other hand, it was only imperfectly closed over further forward, opposite to where the deeper part of the cleft forms the tympanum and Eustachian tube. Cases of absence of the auditory meatus, with presence of the auricle, are described by Toynbee, Hinton, and Holmes, and would seem to be not uncommon, but the reporter has not found any case in which the closure of the cleft where it should be open has been compensated by its patency where it should be closed on the surface.—*Rfp.*] WALTER PYE.

300. *Tizzoni on New Formation of Liver-Substance.*—Professor Tizzoni of Bologna, whilst con-

ducting some experimental investigations on the spleen, accidentally wounded the liver of a dog. Seven months later, the parts were examined. It was then found that the wound was in great part repaired by a new formation having all the naked-eye characters of the organ. This new formation was prolonged upon the great omentum in the form of a triangular tongue about 2 centimetres long, 5 millimetres broad, and 2 millimetres thick. Microscopically, the cells were found in various stages of development. The conclusion arrived at is that the development of the new formation is in all respects identical with the embryonic development of the viscus as described by Remak and by Kölliker, except that the elements are clearer and more evident, because better differentiated. WILLIAM R. HUGGARD, M.D.

301. *Reed on the Histogenesis of Carcinoma.*—Dr. Carl Hempel Reed, in the *Philadelphia Med. Times*, reports the results of some studies in the Pathological Laboratory of the University of Pennsylvania upon the histogenesis of carcinoma. He concludes that cancers have an exclusively epithelial origin, and summarises the essential points in favour of this view as follows. 1. Primary true cancers are found only in locations where there is pre-existing epithelium. 2. No cancer has been proved beyond doubt to have originated heterotopically. 3. The cicatrization of cancers explains the young connective-tissue infiltration. 4. Young connective-tissue cells or white blood-corpuscles are never seen inside the alveoli. 5. The epithelial cancer-cylinders are independent of the connective tissue. 6. The proliferating power of epithelium normally is greater than that of any other tissue. 7. Experiments show that the epithelial covering in the healing of ulcers is exclusively derived from the epithelium of the border, a most conclusive proof of this being the gradual advancement of the pigment from the borders of the healing ulcer; this fact, by analogy, forming a strong testimony in favour of the epithelial origin of cancer. 8. The transformation of connective-tissue cells into epithelial cells, in extra-uterine life, does not occur either physiologically or pathologically.

302. *Lancereaux on Varieties of Cirrhosis of the Liver.*—Dr. E. Lancereaux (*Revue de Méd.*, July and Oct., 1882), distinguishes three varieties of cirrhosis of the liver—the syphilitic, the malarial, and the alcoholic. In cirrhosis of syphilitic origin, the liver is deeply lobulated, furrowed, and adherent to the neighbouring organs. The cellular hyperplasia seems to centre round the ramifications of the lymphatic and arterial systems. There is little or no ascites, no enlargement of the superficial abdominal veins, and no icterus, unless from compression of the bile-ducts by the newly formed connective tissue. The course of this affection is slow, and the prognosis is favourable. In the malarial variety, the liver is greatly increased in size, of firm consistence, and presents a smooth or slightly granular surface. The principal signs of malarial cirrhosis are hypertrophy of the liver and of the spleen, long-continued jaundice, and slow progress. Alcoholic cirrhosis presents two forms. In one the liver is contracted, hard, fibrous, nodulated, and not adherent to the neighbouring viscera. In the second form, the organ is increased in size, of smooth or granular surface, presenting a connective-tissue hyperplasia with constant granular or fatty degeneration of the gland-cells. The diagnosis of the first form rests upon the emaciation of the patient, the dryness of the skin, excessive and steady increasing ascites, and dilatation

of the superficial abdominal veins. Death usually results from mechanical obstruction to respiration. In the second form, the hypertrophied liver and the absence of ascites resemble the signs of malarial cirrhosis, but the two varieties differ in the character of the icterus. In cirrhosis of malarial origin, jaundice is always present, but in the alcoholic form it appears late in the course of the disease, and is then of very grave prognosis. The patients usually present symptoms of great depression, and die comatose.

303. *Frerichs on Sudden Death and Coma in Diabetes.*—Frerichs distinguishes three forms of sudden death, or coma, in diabetes: 1. Sudden death from syncope, collapse, paralysis of the heart after exertion, &c.; 2. Coma, ushered in by gastric or other local affections, and accompanied by headache, delirium, anxiety, and dyspnoea; 3. Coma without dyspnoea, commencing with headache, vertigo, a feeling of intoxication, and drowsiness. As regards the alleged causes of coma and sudden death in diabetes, Frerichs states as follows. 1. (Edema, or anæmia of the brain, must be rejected on the evidence furnished by numberless necropsies. 2. So also must the existence of hyperglycæmia, an inspissation of the blood, whereby the corpuscles are changed and rendered unfit for the respiratory function. 3. Uremia can be proved to exist neither through examination of the urine, nor by any changes found *post mortem* in the kidneys. 4. Fatty emboli have been discovered in the capillaries of the brain or lungs in only a very insignificant number of necropsies. 5. Large quantities of acetone have been found in the urine of diabetic and other patients, in whom no nervous disturbances were present. Further, large doses of acetone, administered to men and animals, have failed to produce any dyspnoea or brain symptoms. The theory of necrotic processes in the kidneys, advanced by Ebstein, the author also rejects, as other observers have failed to substantiate his discoveries. The so-called hyaline changes in the urinary tubules, however, are constant. This hyaline substance Frerichs asserts, is produced by glycogenic degeneration—is, in fact, glycogen. Analogous changes have been found in the liver, the heart, inflamed lung-tissue, and other organs.

304. *Sabourin on Obliteration of the Hepatic Veins in Cirrhosis of the Liver.*—In an article in the *Revue de Médecine* for August 1882, Dr. Sabourin concludes that in the great majority of cases of true cirrhosis of the liver the hepatic veins are obliterated. This obliteration may be limited in extent, or it may involve the entire intralobular system of veins, even including branches of very considerable size. The obliteration is due to a true adhesive phlebitis.

305. *Huet on Fibroma of the Renal Capsule.*—Dr. Huet recently presented to the Société Anatomique de Paris (*Le Progrès Méd.*, Sept. 23, 1882) a specimen of a tumour discovered *post mortem* in the body of a woman who had died of pulmonary disease. Its presence had not been suspected during life. The tumour was ovoid in shape, of the size of a large nut, and was attached to the convex border of the right kidney by a pedicle which allowed considerable motion. On section, its texture was exactly like that of a uterine fibroid, composed of a mass of irregularly woven greyish-white fibres. Its tissue was distinct from that of the cortex of the kidney. The capsule of the kidney was closely adherent to the tumour at its junction with the pedicle.

PHYSIOLOGY.

RECENT PAPERS.

306. GENZMER.—The Activity of the Senses in New-born Infants. (*Centralbl. für die Med. Wiss.*, Oct. 1882.)

307. ELLENBERGER AND HOFMEISTER.—The Effects of Mechanical Suppression of the Cutaneous Functions. (*Deutsche Zeitschr. für Thiermed. und Vergl. Path.*, Band viii.)

308. ECKERT.—On the Measurement of the Blood-pressure by Basch's Sphygmomanometer in Children. (*Archiv.*, 1882, No. 14, pp. 220-22; No. 15, pp. 239-41; No. 16, pp. 253-57; and No. 17, pp. 275-77.)

309. MARIANINI AND NAMIAS.—On the Position of the Heart's Impulse. (*Gazz. degli Ospitali*, Nov. 1882.)

310. BIZZOZERO.—The Origin of the Red Corpuscles in the different classes of the Vertebrata. (*Assoc. Med. Ital.*)

311. GOLGI.—On Compensatory Hypertrophy of the Kidney. (*Reale Istituto Lombardo di Scienze e Lett.*)

312. BIRZ.—The Action of Ozone on Blood. (*Centralbl. für die Med. Wiss.*, 1882, No. 11.)

313. HOPPE-SEYLER, G.—Physiological Behaviour of Ortho-nitrophenylpropionic Acid. (*Zeitschr. für Phys. Chem.*, Band vii.)

314. SALKOWSKI, E. AND SALKOWSKI, II.—The Changes which certain Aromatic Acids, produced by the Fermentation of Albumen, undergo in the Body. (*Ibid.*)

315. SALKOWSKI, E.—Further Contributions to the Knowledge of the Formation of Urea, and of the Changes which Amido-benzoic Acid undergoes in the Animal Organism. (*Ibid.*)

316. MARSHALL, T.—Determination of the Molecular Weight of the Hamoglobin of the Dog. (*Ibid.*)

317. WARD.—The Functions of the Soft Palate and Uvula. (*Amer. Jour. of Med. Sciences*, April 1882)

318. POST.—The Effects of Cutaneous Irritation on the Pulse. (*New York Med. Record*, 1882, No. 621.)

ART. 306. *Genzmer on the Activity of the Senses in New-born Infants.*—Genzmer, in a second edition of his inaugural dissertation (*Centralbl. für die Med. Wiss.*, Oct. 1882) says that the sense of touch is developed from the earliest period, and reflex actions are readily excited by the slightest stimulation of the nerves of touch, especially of the face, then of the hands, and soles of the feet. The feeling of pain is but slowly developed, and is only clearly exhibited after four or five weeks, before which time infants do not shed tears. True muscular sense is at least doubtful. Excitement of the sense of touch gives rise to unconscious reflex movements; the amount therefore, rather than the quality of the sensation, is observable. Closure of the nostrils occasions a reflex dyspnoea. Hunger and thirst are manifested in an increased general irritability, followed by reflex movements; these cease after the first week. Smell and taste are not distinguishable in infants. Genzmer asserts, in opposition to Kussmaul, that the sense of hearing is perceptible in the first, or at most the second, day of life. New-born infants are so sensitive to light that they will turn the head to follow a mild light; whilst, if a strong glare be suddenly thrown upon the eye, squinting is induced, and even convulsive closure of the lids. After a few days, the child will follow the motion of various objects by movement of its head. Between the fourth and fifth weeks the convergence of the pupils and the power of co-ordination in vision are perceptible. A distinct perception of colour does not exist under four or five months; before then it is quantity rather than quality of light that is recognised. The inhi-

bitory reflex centre is not yet developed in the eye; weak and moderately strong irritation excite movements which subserve that purpose. Excessively strong impressions only excite passive movements. New-born infants cannot separate the impressions on their organs of sense. The readiness of excitability is shown in the fact that the stronger the stimulation, the shorter the physiological interval.

307. *Ellenberger and Hofmeister on the Effects of Mechanical Suppression of the Cutaneous Functions.* Dr. Ellenberger (*Deutsche Zeitschr. für Thiermed. und Vergl. Path.*, Band viii.; and *Contrabl. für die Med. Wiss.*, 1882, No. 52) says that (*Contrabl.*, 1877, s. 539) Senator has shown that the received doctrine of the danger of varnishing the skin in the human subject is not valid. Dr. Ellenberger has experimented with an impervious varnish, on horses, sheep, pigs, and dogs, and has arrived as a result at the conclusion that the generally received opinion is not correct that varnishing not only the whole but even a part of the body is followed by fatal effects. One sheep died from the direct consequences; these animals seem the least able to endure the effects. Pigs are but little affected by even repeated varnishing; at first the bodily temperature falls one degree. No danger follows in dogs; at first the pulse rises and the temperature falls. Neither polyuria nor albuminuria is induced. A thick coating of tar is dangerous to dogs by the absorption of its fluid constituents. In horses the effects are not unimportant, but they are not lethal. After clipping, the temperature sinks 1° to $1\frac{1}{2}^{\circ}$ C., and after a few days this becomes again normal. After varnishing the surface of the body, respiration becomes slower and deeper, the pulse increases in frequency, and the temperature 1° to 3° C. Muscular tremors follow. The quantity of urine and of urea was increased for several days; but neither albumen nor bile was present. All these phenomena disappeared in the course of two or three weeks. The vicarious action of the lungs and kidneys compensated and prevented any severe disturbance. Herr Hofmeister found that from one horse experimented upon, from 114 to 195 grammes of urea were excreted during seventy-four hours; from five others, 104 to 114 grammes daily. One horse died from pneumonia. In healthy animals, varnishing was not followed by albumen in the urine. Indican was found in normal quantity.

W. B. KESTVEN, M.D.

308. *Eckert on the Measurement of the Blood-Pressure in Children.* Dr. Alexandra Eckert, Physician to the Elizabethan Ho-spital for Children, St. Petersburg, publishes (*Vratch.*, 1882, Nos. 14-17) the results of her observations on the blood-pressure, carried out in thirty healthy and twenty diseased children, aged from $\frac{1}{2}$ to 13 (two-thirds of them girls). The measurements were taken on both temporal arteries by means of a Basch's sphygmomanometer, which had been duly modified to be fit to the region selected by the author for her experiments. She arrives at the following conclusions. A. *For healthy children.*—1. During the period between two and ten years the blood-pressure increases from year to year, at first slowly, corresponding to the slow increase in height and weight; then during the fifth, sixth, and seventh years more rapidly; the seventh and eighth years present an equal tension; the ninth and tenth, again, show a considerable increase; while during the next three years the blood-pressure slightly falls, though height and weight continue to increase at a considerable

rate. 2. The blood-pressure in the left temporal artery in a vast majority of cases is from 1 to 10 millimètres higher than in the right. 3. Given an equal age, in boys the average blood-pressure (as well as weight and height) is higher than in girls. B. *For diseased children* (eight cases of typhoid fever, two of mixed typhoid, six of recurrent typhoid, four of bone-abscesses).—1. The febrile state invariably has a decided effect on the blood-pressure in the peripheric arteries. 2. Febrile processes of short duration, with rapid rise of temperature and a distinct crisis, forcibly modify the blood-pressure, which at first rises to a high manometric level, and afterwards during the crisis falls considerably below the normal average. 3. The febrile forms of prolonged duration at the beginning show an increase of arterial tension. After long standing, the febrile state is accompanied by a considerable reduction of the blood-pressure. 4. With the cessation of fever the blood-pressure gradually recovers, and within from one to three weeks reaches the standard figures corresponding to an age given. [The apparatus which had been introduced by Professor Basch in 1880 (see his 'Ueber die Messung des Blutdruckes am Menschen,' in the *Zeitschr. für Klin. Med.*, 1880, Vol. ii.; also 'Einige Ergebnisse der Blutdruckmessung an Gesunden und Kranken,' *ibid.*, 1881, Vol. iii.) seem to have found a friendly reception in the St. Petersburg Clinics. At least, within this twelvemonth, besides Dr. Eckert, three other observers have employed Basch's sphygmomanometer for their researches, namely, Drs. Sholkovsky (see the LONDON MEDICAL RECORD, April 1882, p. 317), Stelmahovich (*ibid.*, Nov. 1882, p. 453), and H. Shapiro ('Inaugural Dissertation on the Influence of Observations of the Blood-Pressure on the Heart's Activity in Health and Disease'). All these observers have, however, found it necessary to more or less modify the original instrument of Basch.—*Rep.*]

V. IDELSON, M.D.

309. *Marianini and Nannini on the Position of the Heart's Impulse.*—The authors (*Gazz. degli Ospitali*, Nov. 1882) carefully examined 55 healthy persons of both sexes of all ages, in the upright position, 54 surgical and 126 medical cases. Their conclusions are these. 1. The heart's beat occupies in 67 per cent. the fourth intercostal space, in 33 per cent. the fifth. 2. The difference in favour of the fourth space is greater in the female sex than in the male; in females 86 per cent. in the fourth and 14 per cent. in the fifth, whilst in males in 62 per cent. the heart's impulse is in the fourth space, and in 38 per cent. in the fifth. 3. With advancing age, the cardiac beat is lowered. 4. The erect position also lowers it. 5. All maladies of the respiratory apparatus, not only chronic, but also acute, which embarrass the circulation through the lungs, such as extensive pneumonia, capillary bronchitis, and pleurisy with copious effusion, lower the heart's impulse.

310. *Biziozero on the Origin of the Red Corpuscles in the different Classes of the Vertebrata.*—Little more than ten years ago nothing definite was known as to the origin of the red corpuscles; the hypothesis existed, that they were developed from the white corpuscles. A great step in advance was made when young red corpuscles provided with a nucleus were found in the medulla of the bones of the higher and some of the lower vertebrata, thus showing that the production took place in this organ. The exact origin of the red corpuscles had still to be deter-

mined, and their derivation from transformation of the white corpuscles was still admitted. Professor Bizzozero noticed that many of the corpuscles were in a state of scission—that is, with a double nucleus and an equatorial constriction. He afterwards found that this multiplication of the red elements took place by indirect scission. His recent studies, undertaken with Dr. Torre, prove that these young corpuscles in a state of scission have their seat in the medulla of the bones in mammals, birds, reptiles, batrachia anura (frogs), while they are found in the spleen in batrachia urodela (newts, &c.), and in fishes. The production of the red corpuscles in the adult takes place by scission, as is the case in the embryonic period of life, and not by transformation of the white corpuscles.

311. *Golgi on Compensatory Hypertrophy of the Kidney.*—After having enumerated the controversies still existing as to the interpretation to be given to compensatory hypertrophy of the kidneys, the author gives (*Reale Istituto Lombardo di Scienze e Lett.*, and *Gazz. Med. Ital. Lombardia*, Dec. 2, 1882) the results of his observations on kidneys rendered hypertrophic in animals by the performance of nephrectomy. From these observations it is clear, what indeed was presumable, that the enlargement of a kidney consecutive to the exportation of its fellow must be attributed, at least in part, to the growth of pre-existing gland-tissue, as is seen by the direction of the physiological increase. The author asks if, besides this mode of increase in compensatory hypertrophy, we ought to admit a true new formation of canaliculi in the interstitial tissue, by a differentiation of the epithelial cells of the connective; and says that he does not feel sufficiently authorised to affirm the existence of such true new formation of the canaliculi.

G. D'ARCY ADAMS, M.D.

312. *Binz on the Action of Ozone on Blood.*—Binz has investigated the action of ozone on blood (*Centralbl. für die Med. Wiss.*, 1882, No. 11), and has found that, passed for a considerable time through a large volume of defibrinated blood, ozonised air produces no visible microscopical or spectroscopic change in the blood. If the quantity of blood were small, the ozone darkened its colour and altered its spectrum; and, when microscopically examined, the corpuscles were observed to be unbroken and to have swollen up and become globular. A solution of oxy-hemoglobin, similarly treated, was after a short time rendered muddy and brown, and, after a longer time, yellowish-green, with an acid reaction. In every case, the whole of the ozone did not disappear from the air in its passage through the blood. The negative effect of the ozone on a large quantity of blood agrees with what the author has observed in the blood of animals which have been kept sleeping for hours by means of ozonised air.

313. *Hoppe-Seyler on the Physiological Behaviour of Orthonitrophenylpropionic Acid.*—George Hoppe-Seyler (*Zeitschr. für phys. Chem.*, Band vii, p. 178), in the chemical laboratory of the Physiological Institute of Berlin, has investigated the changes which orthonitrophenylpropionic acid ($C_9H_7(NO_2)O_2$) undergoes when administered to rabbits and dogs. Comparatively recently, Baeyer has prepared indigo ($C_{16}H_{10}N_2O_4$) from this acid by means of weak reducing agents in alkaline solutions. George Hoppe-Seyler has been able to prove that the same process of reduction occurs when the acid is administered to animals, indigotine appearing in the urine combined

with sulphuric acid, and, in small part, with glyconic acid. The nitrophenylpropionic acid is poisonous to both rabbits and dogs, but in a proportionately larger dose to the former than to the latter. In the latter the administration of even one gramme was followed by polyuria and by the appearance of albumen and glucose in the urine, a condition which was never observed in the urine of the rabbits. Some importance is to be attached to G. Hoppe-Seyler's experiments, as indigo and indol are natural constituents of the urine.

314. *E. Salkowski and H. Salkowski on the Changes which certain Aromatic Acids, produced by the Fermentation of Albumen, undergo in the Animal Body.*—This article (*Zeitschr. für Phys. Chem.*, Band vii, p. 161), forms a valuable addition to the several highly interesting researches which have been made quite recently on the changes which bodies of the aromatic series undergo in the animal organism. The results of the present research are of particular interest, because, instead of choosing to observe the changes induced in some aromatic body which is rarely or never met with but in the laboratory of the chemist, the authors have selected for observation those aromatic acids which are known to be the products of the putrefactive fermentation of albumen, and which are believed to be constantly produced to a greater or less extent in the alimentary canal, particularly in pathological conditions. These acids are phenylacetic acid and propionic acid, both of which are homologues of benzoic acid; and *p*-oxyphenylacetic acid, and *p*-oxyphenylpropionic acid, homologues of *p*-oxybenzoic acid. The first of these, phenylacetic acid, given to dogs and rabbits, was found in the urine combined with glycol to form a compound, $C_{10}H_{11}NO_3$, which the authors have named phenaceturic acid. None of the phenylacetic acid appeared unchanged in the urine, unless it had been administered in large quantity. None of it was apparently oxidised to benzoic or hippuric acids; nor in any experiment except one had the authors reason to believe that a portion of it had been converted into phenol. The phenylacetic acid is itself highly antiseptic. Phenylpropionic acid did not appear in the urine as a glycol compound, but seemed to have been largely converted into hippuric acid, and in small quantity into benzoic acid. None of it was excreted unchanged. Its conversion into hippuric acid is very interesting, because the authors state, as their belief, that phenylpropionic acid, arising from the fermentation of albumen in the alimentary canal, is the entire source of hippuric acid in the urine. The next acid, *p*-oxyphenylacetic acid, an acid which the authors were the first to separate as a product of decomposing albumen, was found after administration to have undergone a similar change to that which oxyphenylacetic acid was observed to suffer. It formed a compound with glycol, which the authors have named oxyphenylaceturic acid. The last of the four acids, *p*-oxyphenylpropionic acid was found in the urine almost entirely in the form of *p*-oxybenzoic acid. None of it appeared unchanged, and the urine did not contain a trace of phenol. The acid does not increase the decomposition of albumen in the animal body. In this respect it differs from phenylacetic acid, which the authors found to augment very considerably the amount of sulphuric acid in the urine.

315. *Salkowski on the Formation of Urea, and the Changes which Amido-benzoic Acid undergoes in*

the Animal Organism.—The conclusions which Professor Salkowski (*ibid.*) has arrived at from this investigation may be thus summarised. 1. Amido-benzoic acid is in the animal organism partly converted into uramido-benzoic acid, and in variable proportion, never exceeding 20 per cent. 2. The remainder of the acid partly remains unaltered, and is partly excreted as hippuric acid. 3. The amido-benzoic acid does not form any sulphur compound in the organism, nor does it affect the quantity of the paired or ether-sulphuric acid. 4. The uramido-hippuric acid is not formed in the kidneys. 5. The formation of urea is not disturbed by the formation of uramidic acid in the body; the uramido-benzoic acid is not formed at the expense of the urea. 6. The amido-benzoic acid occasionally causes, like benzoic acid, an increase in the decomposition of albumen within the body.

316. *Marshall on the Determination of the Molecular Weight of the Hæmoglobin of the Dog by the Displacement of Carbonic Acid in CO-hæmoglobin by NO.*—Dr. Marshall (*ibid.*) made his analyses in the laboratory of Professor Hüfner, and in order to determine the molecular weight of hæmoglobin took advantage of the fact, first pointed out by L. Hermann, that nitric oxide is capable of driving out the carbon monoxide from its combination with hæmoglobin. As CO-hæmoglobin is readily obtainable in a pure crystalline form of definite composition, this seemed a suitable method for ascertaining the molecular weight of hæmoglobin. Hüfner previously found that 1 gramme of hæmoglobin is capable of uniting with 1202 cc. of oxygen at 0°C. and 1 m. pressure. Marshall has estimated that the same weight of hæmoglobin combines with 1205 cc. of carbon monoxide, from which he has calculated the molecular weight of hæmoglobin to be 14127. Hüfner, from his experiments, had calculated it as 14129. Marshall accepts Hüfner's as the more correct, and therefore gives the empirical formula of CO-hæmoglobin as $C_{63}H_{1025}N_{164}Fe_2O_{190}$.

MATTHEW HAY, M.D.

317. *Ward on the Functions of the Soft Palate and Uvula.*—In the *Amer. Jour. of Med. Sciences* for April 1882, Dr. Whitfield Ward publishes a paper, in which he shows that the velum and uvula play an important part in the production of nearly every tone that issues from the vocal organs, and, without their proper action, singing is out of the question. During the production of tones that are emitted through the nose alone, the free border of the velum rests upon the dorsum of the tongue, thus shutting off all communication between the fauces and anterior buccal cavity, and increasing the length of the human musical pipe. If, during the intonation of certain notes, the pendulous velum should be pressed up against the pharynx, exactly the same effect would be produced as though a piece of the upper extremity of an organ pipe were to be cut off; namely, the placing of the note higher in the scale. The physiology of the uvula is none the less remarkable, since very many of the actions of the velum are entirely under the control of this important little body, which acts as its supporter.

318. *Post on Cutaneous Irritation and the Pulse.*—Dr. Sarah E. Post (*New York Med. Record*, 1882, No. 621) gives the results of a number of experiments on patients, of the effects of electrification of the skin on the pulse. These were retardation of the pulse-rate, and, as a rule, rise in tension. Mustard plasters applied to the spine caused at first

increased pressure and acceleration, followed by diminished pressure and frequency. Dry cupping applied to the back caused rise of pressure, with slight acceleration; no result followed application to the thigh.

OPHTHALMOLOGY.

RECENT PAPERS.

319. MCKAY.—Eye-diseases dependent upon Suppression of Menses. (*Amer. Jour. of Med. Sciences*, Oct. 1882.)

320. HERMANN (Gottlieb).—On the Cause of Colour-Blindness. (*Dorssat*, 1882.)

321. TAYLOR.—Transplantation of the Skin *en masse* in the Treatment of Ectropion and other Deformities. (*Practitioner*, Dec. 1882, p. 427.)

322. BENSON.—Treatment of Partial Trichiasis by Electrolysis. (*Brit. Med. Jour.*, Dec. 1882, p. 1203.)

323. ADAMS.—Peroxide of Hydrogen in Ophthalmic Disease. (*Brit. Med. Jour.*, Dec. 1882, p. 1148.)

324. SAUNDREY AND EALES.—Changes in the Fundus Oculi in Anæmia. (*Ophth. Review*, Sept. 1882.)

325. MAZZA.—Total Calcareous Degeneration of the Crystalline Lens. (*Gazz. Med. di Roma*, Sept. 1882.)

326. MASSE.—Grafting Corneal Tissue on the Iris. (*French Academy of Sciences*.)

327. COWELL.—On Modifications of Von Græfe's Linear Operation for the Extraction of Cataract.

328. LORING.—Choked Disc and Intracranial Disease. (*New York Med. Jour.*, June 1882.)

329. MAÑEZ.—Shepherds' Ophthalmia. (*Revista de Med. y Ciruj. Práct.*, Sept. 22, 1882.)

330. SALTIEL.—Iodoform in Affections of the Eye. (*Tenth Congress of the Ital. Med. Assoc.*, 1882.)

331. MASINI.—Resorcin in Maladies of the Eye. (*Tenth Congress of the Ital. Med. Assoc.*, 1882.)

332. CHISOLM.—Cystic Tumour due to a Hair which had penetrated the Eyeball. (*Maryland Med. Jour.*, Dec. 1, 1882.)

ART. 319. *McKay on Eye-diseases dependent upon Suppression of Menses.*—In the *American Journal of Medical Sciences* for Oct. 1882, Dr. R. J. McKay reports twelve cases in which suppression of the menses was accompanied by disturbance of vision. Cases of this kind demand prompt recognition as to their etiology (before vision is too much impaired by the internal eye-disease), in order that they may be successfully treated and relieved. Partial loss of vision, and inability to use the eyes in young healthy-looking females, without external eye-disease, always suggest to his mind the probabilities of menstrual disturbance, and he makes it a rule to at once inquire about the matter.

Young school-girls often manifest asthenopia (weak and painful sight) about the time their menses are being established, and especially if their menses become irregular from any cause, which may produce partial or complete suppression for an indefinite time. Sometimes they manifest decided congestion of the optic papillæ and retinæ, and at others no internal eye-lesion, with the exception of strain of accommodation. This is common to all such cases, for they have some refractive deformity of their eyes. The latter sooner or later causes their muscles of accommodation to rebel from their over-taxed and too continuous work.

320. *Hermann on Colour-blindness.*—Dr. Hermann finds that Stilling's pseudoisochromatic tables, with Holmgren's wool, should be used together in testing soldiers and officials for degrees of colour-blindness. Dr. Höppner's tables refer to Russian railway signal-

men and engine-drivers only; they were published in an early number of the *Vratch* for 1882. Dr. Hermann has collected the following tables, showing the relative prevalence of colour-blindness among 1,012 school children and students of different races at Riga.

Race.	Cases Examined.	Partially Colour blind.	Wholly Colour-blind.
German	630	20 or 3.17 per cent.	5 or .79 per cent.
Polish	140	9 or 6.43 "	1 or .71 "
Jewish	114	6 or 5.26 "	3 or 2.63 "
Letish	65	2 or 2.95 "	0 "
Russian	45	1 or 2.22 "	0 or .44 "
Estonian	11	0 "	0 "
* Foreigners	12	1 or 7.70 "	0 "
Total	1,012	32 or 3.19 per cent.	10 or .79 per cent.

Dr. Hermann states, in concluding his thesis, that his researches do not lead him to perfect belief in any one of the theories that are said to account for colour-blindness.

ALBAN DORAN.

321. *Taylor on Transplantation of Skin en masse in the Treatment of Ectropion and other Deformities.*—In the *Practitioner*, Dec. 1882, p. 427, Dr. Charles Bell Taylor reports a most instructive case, accompanied with photographs, showing how large pieces of skin may safely be transplanted to distant regions, and that without the preparation recommended by Dr. Wolfe, who advised every particle of cellular tissue to be carefully scraped away from the cutis of the flap grafted in. The case, Dr. Taylor now reports, is that of a girl, who had lost much of the upper eyelid through extensive exfoliation of diseased bone in a scrofulous habit; the ectropion being most disfiguring. The upper and lower lids, being pared, so as to create a raw surface on each, were firmly fixed by sutures at their tarsal margins, and retained thus for six months. At the same time a flap, sufficient in size to fill up the gap left when the lids were in this position, was dissected from the arm and placed *in situ*, just as it was dissected out; the result being that, at the end of the six months, a face, previously repulsive, was transformed into one that was attractive and pleasant to behold. Dr. Taylor finds that his percentage of success in such cases is greatly increased since he employed flaps that received no such preparation as was originally advised by Dr. Wolfe.

322. *Benson on the Treatment of Partial Trichiasis by Electrolysis.*—Mr. Arthur Benson, in the *Brit. Med. Jour.*, Dec. 1882, p. 1203, proposes a new method of treating cases of partial trichiasis by electrolysis. The plan adopted is as follows. A fine gold needle is attached to the negative pole of a Leclanché's battery, and its point inserted along the hair to be destroyed, so that the root is reached. The positive pole is then attached to the lid near the outer canthus, and the current allowed to pass for about half a minute, when the hair will be found to be quite loose. Only a few can be done at a time this way, on account of the subsequent inflammation sometimes set up. The advantages claimed for this method over epilation, snaring, or the actual or potential cauteries, are these. 1. Any individual hair can be destroyed without injuring those beside it. 2. The hair can be got rid of at once and for ever. 3. Hairs of any length, strength, or position can be treated. 4. By its early use it will render unnecessary many of the more formidable operations on the lids, besides saving the patient much misery.

323. *Adams on Peroxide of Hydrogen in Ophthalmic Disease.*—Mr. James Adams, in the *Brit. Med. Jour.*, Dec. 1882, p. 1148, refers to a paper by Mr. Kingzett in the *Journal* of Dec. 2, on the uses of peroxide of hydrogen in medicine and surgery. Mr. Adams speaks in the highest terms of its action in cases of severe purulent ophthalmia; he has refrained from publishing any cases, as M. Landolt, of Paris, was expected to bring out a paper on its action on purulent discharges from the conjunctiva.

RICHARD NEALE, M.D.

324. *Saundby and Eales on Changes in the Fundus Oculi in Anæmia.*—Saundby and Eales (*Ophthalmic Review*, Sept. 1882) have examined the fundus oculi in fifty cases of simple well-marked chlorosis, and found notable pallor of the disc and fundus, with distended and tortuous veins, which sometimes pulsated. In six cases, there were whitish yellow or black spots noted. In five there was very slight blurring of the disc; in four others slight ill-defined exudations around the discs or near the fovea or at the periphery of the retina, and in one case two spindle-shaped hæmorrhages. All the four cases with exudation were markedly hypermetropic. There was one case with a patch of choroidal atrophy, and one of extensive choroido-retinitis, with abundant evidence of hereditary syphilis. Thus in eight per cent. there was undoubted evidence of neuro-retinitis. In many cases the perforated disc depreciated the accuracy of vision, pointing to failure of perception of light.

ROBERT SAUNDEY, M.D.

325. *Mazza on Total Calcareous Degeneration of the Crystalline Lens.*—This case is related in the *Gazz. Med. di Roma*, Sept. 1882. The patient, 58 years of age, had suffered from the age of 16 with conjunctivitis of the left eye, which gradually, after repeated relapses affecting more and more the deeper structures of the bulb, terminated by inducing complete blindness, causing an anterior sclero-choroid staphyloma, a corneal leucoma with synechie of the iris, and almost complete atresia of the pupil. The small apertures of the pupil which remained appeared occupied by a whitish exudation. From the various alterations to which the eye was subject, from the great augmentation of tension and from the recurrent acute attacks, Dr. Mazza judged it expedient to apply drainage with a double gold thread, as recommended by De Wecker in retinal detachment. This operation appeared to be of real advantage to the patient; but after a month or a little more he was tired of it, and desired the extraction of the drainage-thread. Two months after this he was seized with panophthalmitis, and, as he would not submit to the enucleation of the bulb, Mazza determined to divide it. The point of the knife slipped on a body of stony hardness, which, being extracted, was recognised as the crystalline lens itself in a state of calcareous degeneration. No chemical analysis of it was made; but the author has no doubt that it resembled the crystalline lens extracted by Desmarres and examined by Robin in 1848. This consisted of an external stratum, one inch in thickness, friable like an egg-shell, the internal mass having the consistence of fat. Under the microscope it was seen to be composed of inorganic particles, soluble with effervescence in hydrochloric acid, and of an amorphous, nitrogenous, finely granular network, and of scattered albuminous particles.

G. D'ARCY ADAMS, M.D.

326. *Masse on Grafting Corneal Tissue on the Iris.*—In a note presented to the French Academy of Sciences by Prof. Vulpian on the part of Prof. Masse of Bordeaux, the latter points out the results of his experiments in grafting small pieces of corneal tissue upon the iris of rabbits' eyes. Two forms of new growth upon the iris appear to result from such transplantations of tissue: (1) pearly tumours made to all appearance of epithelial cells; (2) cysts with delicate transparent walls. He thinks that the growths of similar appearance which are encountered clinically can in the same way be accounted for by accidental transplantations, the force of the blow having been sufficient in the case of a perforating wound to carry on to the iris small particles of corneal tissue.

W. A. BRAILEY, M.D.

327. *Cowell on Modifications of Von Gräfe's Linear Operation for the Extraction of Cataract.*—In a paper read at the last annual meeting of the British Medical Association (*Brit. Med. Jour.*, Jan.) Mr. G. Cowell says:—‘I have from each new method reverted with satisfaction to Von Gräfe's modified linear extraction; but I was early induced to introduce certain minor modifications of my own, or, rather, I would prefer to call them attentions to minor, yet important, details, for every surgeon knows that it is on these that the success of all operations in a large measure depends. These modifications, if such they may be called, may not suit everyone's mode of operating; but a careful attention to them will minimise dangers, and, in my own hands, they have been attended with a very considerable success, as I shall show by giving an analysis of 100 consecutive cases. But, first, let me describe the points to which I attach importance, and the modifications that I have followed. 1. I always have the pupil well dilated with atropine on the morning of the operation. 2. I always give an anæsthetic, unless it be contradicted, or unless I can be sure of the complete quietude of my patient. Only 6 per cent. have been operated on without. 3. The section is corneal, but sufficiently peripheral to be sub-conjunctival, the puncture and counter puncture, which are a little lower than in Von Gräfe's operation, alone being just outside, or in the sclero-corneal junction, according as there is reason to believe that there is a large or small nucleus. 4. The section is made with extreme deliberation, with scarcely more pressure than the weight of the knife; and in making the middle of the section the edge of the blade is not turned much forwards, the desire being that the middle of the section should be only just within the margin of the cornea. It is important that the knife be sharp, in order that no force be used in making the section, thereby avoiding all risk of disturbing the coats and contents of the eye. 5. Sometimes, but not always, after the section has been made, the end of the section answering to the counter puncture is just touched by the end of the blade of Gräfe's knife, so as to make the section of the internal surface of the cornea correspond with the section of the outer surface, as is already the case at the point of puncture. This is important only when the section is somewhat small or the nucleus large. 6. A period of rest of at least one minute is taken between each step of the operation, to give the eye time to adapt itself to the new conditions of circulation and tension. 7. A free crucial incision is made in the anterior capsule. 8. A gentle coaxing out of the nucleus and all the soft lens matter is

made with the smooth back of the curette, taking care that the surface of the cornea is moist before passing the curette over it, avoiding, at the same time, all force, and using the hook at once if the nucleus does not readily escape. 9. A careful tucking in with the end of the curette of any portion of iris or urea that may be occupying the angles of the section. A neglect of this precaution sometimes postpones the healing of the wound, and leads to the formation of a cystoid catarix, which may, at some future time, be a cause of irritation in the eye. It is also important carefully to adjust the conjunctival flap over the wound. I use the same instruments as were recommended by Von Gräfe, except that I prefer the iris forceps curved at the points, instead of straight, and the iris scissors made in the form of forceps, as they are then as convenient for use with the left hand as with the right. As a result of an attention to these points, I claim: 1. ‘An immunity from rupture of the hyaloid, or what does duty as a hyaloid, and, therefore, from loss of vitreous except when the latter is very unhealthy, about five per cent.; 2. The diminished frequency of the occurrence of iritis and other inflammatory conditions; 3. A more rapid convalescence, twelve to twenty days, average fifteen days; 4. An increased proportion of cases in which the patient is able to read brilliant type. The after-treatment is that recommended by Von Gräfe. It is rarely necessary that the patient should be kept in bed beyond the third day, or confined to the house beyond the twelfth or fourteenth. I most rigidly abstain from looking at the eye before the fourth day, and often wait until the sixth or seventh. I have for many years given up the practice of keeping my cataract patients in a dark room.’

328. *Loring on Choked Disc and Intracranial Disease.*—Dr. E. G. Loring (*New York Med. Jour.*, June 1882) concludes an article as follows. 1. The vaso-motor theory, as advanced by Benedikt, is not sufficient to explain either the mode of transmission of the morbid irritation within the head, or the resulting neuritis optica. 2. The irritation is conveyed, not by the isolated fibres of the sympathetic system, but through the agency of the trigeminus. 3. Choked disc or papillitis, in connection with brain-disease, is not simply a vaso-motor disturbance—a vascular change—which leads to inflammation and stasis on account of the anatomical conditions of the parts affected, but it is a true neuritis, the expression of an irritation of certain fibres of the fifth pair, which not only regulate the blood-supply in the vessels of the disc and its neighbourhood, but which also maintain the healthy processes of waste and repair of the elements of the tissues themselves. This being so, the same analogies and distinctions between ‘irritation’ and ‘inflammation’ can be made here as with sympathetic ophthalmia, so that here, as well as there, the irritation may exist as such for an indefinite time, or may so reduce the vitality and resisting power of the tissue of the disc and surrounding parts as to develop gradually, or explode suddenly, into an actual inflammation—that is, into a neuritis. The immediate and exciting cause of this neuritis might then be either an external one, such as exposure to cold or heat, over-exertion, either mental or physical, or, indeed, too much exposure to light, which, under the weakened condition of the organ, might lead to a papillitis; or the exciting cause might be an internal one, such as some irritation from the condition

of the blood and circulating fluids, either chemical or mechanical, either local or general, which, insufficient in itself to produce any had effect upon a normal disc, might yet be just sufficient to produce a condition of inflammation in a part that was weakened and irritable.

329. *Mañez on Shepherds' Ophthalmia.*—Dr. Eduardo Mañez describes (*Revista de Med. y Cirurg. Práct.*, Sept. 22, 1882) three cases of conjunctivitis, caused by the presence of the larvæ of the *musca carnaria*, observed by him in shepherds. The first symptom noticed was that of a foreign body in the eye, accompanied by a pain like the pricking of pins, referred to the oculo-palpebral fold of the conjunctiva. Then followed lachrymation, agglutination of the eyelashes, swelling of the lids, and injection of the conjunctiva. Small whitish worms, moving about with great rapidity, could be seen in the eye. If these could be extracted in the beginning, the conjunctivitis subsided without further treatment; but later their removal was difficult on account of the tumefaction of the lids. After a trial of various remedies in a similar conjunctivitis excited in rabbits, the author found that the best was the essential oil of juniper. This, when dropped into the eye, caused the death of the worms in a few minutes, and the conjunctivitis then disappeared under the ordinary treatment.

330. *Saltini on Iodoform in Affections of the Eye.*—Iodoform has been used for the last year in the Ophthalmic Clinic of Modena in the form of powder in various maladies of the conjunctiva and cornea. It is always well tolerated, and seems to exercise a certain efficiency as an antiseptic in ulcers and in infiltrations of the cornea. Professor Gradenigs was able, in a case of burning of the conjunctiva with quicklime, to prevent the formation of a symblepharon.

332. *Chisolm on Cystic Tumour due to a Hair which had Penetrated the Eyeball.*—At the meeting of the Baltimore Academy of Medicine held Nov. 7, 1882 (*Maryland Med. Jour.*, Dec. 1, 1882) Dr. J. J. Chisolm reported a rare case of cystic tumour of the iris occurring in a child 4 years of age. Nine months since, he was accidentally struck in the left eye by a piece of wire from a hoopskirt. It cut the cornea on the nasal side, leaving a cicatrix extending from the pupillary border to the inner corneal margin—not passing over into the sclera. The iris was adherent to the corneal wound, leaving the pupil free, however, and sight was not destroyed. Three months since, and six months from the receipt of the accident, a minute yellow spot was detected in the centre of the temporal side of the iris, midway between the pupillary border and the corneal margin. It caused no pain, and did not inject the eye. For three months its slow growth had been watched till it attained the size of a millet seed. It was considered a dangerous development, needing a special interference. The patient was brought to him for the removal of the growth. Under chloroform an iridectomy was successfully performed, removing the entire tumour with a margin of healthy iris. When the specimen was held up in the iridectomy-forceps for inspection, much surprise was occasioned by finding a hair sticking directly out of the growth, which was apparently the cause of the new development. This hair had no hair-bulb, and had not grown, therefore, in the eye, but had evidently been carried in from without at the time of the accident. It was a

transplantation into the iris from which, by long-continued irritation, the growth had developed. In at least 30,000 eye patients which Dr. Chisolm has from time to time had under treatment, this was the first iritic tumour that he had met with in his practice. The child did well after the operation.

TOXICOLOGY.

RECENT PAPERS.

333. DAVIDSON. — Poisoning by Ergot of Rye. (*Lancet*, Sept. 1882, p. 526.)

334. MACLEOD. — A Novel Method of Committing Suicide. (*Brit. Med. Jour.*, Dec. 1882, p. 1246.)

335. BOCCI. — The Poisonous Action of Human Urine. (*Centralbl. für die Med. Wiss.*, No. 51, 1882.)

336. RUGE. — Poisoning by Carbolic Acid. (*Berlin. Klin. Wochensh.*, Oct. 30, 1882.)

337. BONACCORSI. — The Antagonism of Opium and Nicotine. (*Archiv. Med. Ital.*, Fasc. iii. and iv.)

338. SALKOWSKI, E. The Behaviour of Carbonic Acid Blood towards Sulphuretted Hydrogen. (*Zeitschr. für phys. Chem.*, Band vii.)

339. SALKOWSKI, E. The Detection of Arsenic Acid by the Silver Reaction. (*Ibid.*)

ART. 333. *Davidson on Poisoning by Ergot of Rye.* Davidson records a fatal case of poisoning by ergot of rye in the *Lancet*, Sept. 1882, p. 526. The patient, aged 28, had, before coming under observation, vomited half a pint of blood and passed urine which looked like blood. The face, eyes, neck, and upper portion of the chest was intensely jaundiced, the eyes and lips were surrounded by hæmorrhages. The temperature was 96°; the pulse was too rapid to be counted, and could hardly be felt. The cardiac impulse had a distinctly rolling character, and beat 150 in a minute. Respiration varied from 48 to 56. The patient admitted having taken ergot of rye for several months to procure abortion, and of having taken 'two handfuls' of this drug in the solid form the day before the commencement of the illness. With the object of discharging the force of the poison through an active uterus, labour was induced. As an antidote, liquor chlori was administered; but the case was obviously quite hopeless from the beginning, and the patient fell into a state of stupor and died. At the *post mortem* examination, a large quantity of fat was found in the thorax and abdomen, and this, and all the organs except the brain, contained innumerable small hæmorrhages. In the abdominal cavity was a large quantity of blood. No large vessel was found ruptured. The blood was everywhere very fluid. In the uterus was a five months' foetus. This case is most interesting, the more so from the fulness with which the details are given.

334. *Macleod on a Novel Method of Committing Suicide.*—Mr. M. D. Macleod, in the *Brit. Med. Jour.*, Dec. 1882, p. 1246, in referring to a report in the *Journal* of July 1, 1882, records two cases in which suicide was attempted by plugging the pharynx with a wedge of flannel. The uncertainty of discovering what is necessary to be done when called suddenly to cases of asphyxia is greatly increased by such cases, as it might be too late to relieve the patient by the time one had examined if anything had been pushed down the pharynx.

RICHARD NEALE, M.D.

335. Bocci on the Poisonous Action of Human Urine.—Dr. B. Bocci (*Centralbl. für die Med. Wiss.*, No. 51, 1882) says that human urine injected under the skin of frogs causes paralysis, and finally death. The urine after meals is most poisonous, that of strong middle-aged men most so, that of a woman less, and that of children and old people least. On mammals the action is much weaker, causing at most depression, not paralysis. When injected into the heart, its action was more energetic. The reflex nerve-centres and the sensory nerves were not primarily affected. The excitability of the muscles was only slightly diminished. The excitability of the motor nerves, on the other hand, was rapidly and completely abolished, so that electrical stimulation caused no regular contraction, only a fibrillar twitching of the muscles. This action was very analogous to that of curare. The irritability of the motor nerves was abolished without affecting the irritability of the muscles, or primarily affecting the sensory nerves or reflex centres.

ROBERT SAUNDY, M.D.

336. Ruge on a Case of Poisoning by Carbolic Acid. Dr. Ruge relates the following case in the *Berlin. Klin. Wochenschr.*, Oct. 30, 1882. A female, aged 59, took, in mistake for a dose of medicine, a tablespoonful of concentrated solution of carbolic acid (95 per cent.). The whole quantity was swallowed. The instantaneous effect was a fearfully intense sensation of burning in the mouth and throat. The face became pale, the hands and feet cold, and the pulse scarcely perceptible. Vomiting did not ensue, so that the whole dose was retained. Fortunately, antidotes were immediately procured. In the first place the patient drank freely of milk, and then of a mixture of milk, white of egg, and carbonate of magnesia. After taking these, vomiting occurred. The white of egg was returned in lumps like hard-boiled egg, and the vomited matters had no smell of carbolic acid. The above treatment was continued for several days. It is remarkable that no special signs of the poisoning supervened. The urine that was voided was dark-coloured, but free from albumen, and soon resumed its normal characters. No febrile symptoms occurred. The interior of the mouth was corroded and very painful, the pain extending far down the œsophagus. The epigastrium was not tender to pressure. The mucous membrane of the mouth and tongue came away in shreds, and large quantities of mucus, originating doubtless in the œsophagus, were rejected by vomiting. The severe pain in swallowing continued for six days, during which time the patient could take only pulqueous food. The difficulty of swallowing gradually diminished, but had not entirely passed off by Sept. 27 (the acid was swallowed on Aug. 23), solid food requiring a greater effort of deglutition. In all other respects, the patient was perfectly restored to health.

W. B. KESTEVEN, M.D.

337. Bonaccorsi on the Antagonism of Opium and Nicotin.—The author (*Archiv. Med. Ital.*, Fasc. iii. and iv.) gives the continuation of his studies on the antagonism of various remedies, which he began in 1877 with opium and belladonna. His experiments were made on rabbits, guinea pigs, and frogs. From the results obtained with morphia and nicotin, together and separately, and with morphia and hyoscyamin, morphia and aconitin, and morphia and daturin, he arrives at the following conclusions. 1. The antagonism between morphia and nicotin is a demonstrated fact. 2. There is no antagonism between morphia and aconitin, hyo-

scyamin, or daturin. 3. Opium and morphia act particularly on the cortical part of the brain, and on the arachnoid, producing hyperæmia, congestion, paralysis, especially of the vasomotor and of the respiratory centres. 4. Nicotin acts particularly on the brain and medulla oblongata, at first irritating it, and in prolonged action paralysing the nerves which arise from it. 5. Neither morphia nor nicotin has any special action on the blood, liver, kidneys, or bladder. 6. Opium has a depressing action on the splanchnic nerve, while nicotin excites the intestinal ganglia. 7. Death with morphia and nicotin is by asphyxia, with morphia from its paralysing action, with nicotin by its tetanising action on the centre of circulation. 8. In poisoning with nicotin, opium or morphia is to be preferred to any other remedy.

G. D'ARCY ADAMS, M.D.

338. Salkowski on the Behaviour of Carbonic Acid Blood towards Sulphuretted Hydrogen.—In addition to the use of the spectroscope and of Hoppe-Seyler's soda test for the distinction of carbonic acid blood from normal blood, Salkowski suggests (*Zeitschr. für Phys. Chem.*, Band vii., p. 114), a reaction which depends upon the greater resistance displayed by carbonic acid blood, than by normal blood, towards sulphuretted hydrogen. If ordinary oxygenated blood be diluted to the extent of 1 cc. of blood in 50 cc. of water, and the solution be shaken with half to three quarters its volume of a saturated solution of sulphuretted hydrogen, the red colour disappears in a few moments and the fluid becomes dirty green. If the same experiment be made with carbonic acid blood, on adding the sulphuretted hydrogen the red colour is not visibly altered. If the fluid be now placed in a hermetically sealed tube, it will retain its colour for months. This ought to be of considerable medico-legal importance.

339. Salkowski on the Detection of Arsenic Acid by the Silver Reaction.—As is well known, solutions of arsenic salts give a reddish precipitate with nitrate of silver. This important reaction often fails in the hands of inexperienced analysts, because the arseniate of silver is not only soluble in nitric acid and ammonia, but is also soluble in nitrate of ammonia. This difficulty Salkowski (*Zeitschr. für Phys. Chem.*, Band vii., p. 123) proposes to avoid by treating the solution of sulphide of arsenic in fuming nitric acid, which has had its acid afterwards largely removed by evaporation, with carbonate of lime or barium, heating, and filtering. Although the arseniate of calcium or barium is soluble with difficulty in water, yet sufficient of it remains dissolved in the filtrate to give a red precipitate of arseniate of silver on the addition of nitrate of silver.

MATTHEW HAY, M.D.

DISEASES OF THE THROAT.

RECENT PAPERS.

340. WOOD AND FORD.—Report on Diphtheria. (*Supplement*, No. 17, *National Board of Health Bulletin*, Washington, Jan. 21, 1882.)

341. WEIST.—Foreign Bodies in the Air-Passages. (*American Practitioner*, Aug. 1882.)

342. MACKENZIE.—Tubercular Tumours of the Windpipe and Tuberculosis of the Laryngeal Muscles. (*Archives of Medicine*, Vol. iii., No. 2, Oct. 1882.)

343. BROWN-SÉQUARD.—The Possibility of Introducing a Tube into the Larynx without causing Pain or Irritation. (*La France Médicale*, Oct. 3, 1882.)

344. POTAIN.—Laryngeal Typhus. (*Gazette des Hôpitaux*, Sept. 28, 1882.)
345. FRENCH.—Photographing the Larynx. (*Canada Medical and Surgical Journal*, 1882.)
346. BREGEN.—Wound of the Larynx with Tearing and Prolaps of the Mucous Ventricle. (*Revue Mensuelle de Laryngologie*, Nov. 1882.)
347. KRAICZ.—Edema of the Glottis. (*Wien. Med. Wochenschr.*, No. 22, 1882.)
348. HARRISON.—Fracture of the Thyroid Cartilage. (*Lancet*, June 17, 1882.)
349. LÄNDERER.—Extirpation of the Larynx and Pharynx. (*Centralbl. für Med. Wiss.*, Sept. 23, 1882.)
350. HERZ.—Chronic Pharyngitis and Retropharyngeal Lymphadenitis in Children. (*Wien. Med. Wochenschr.*, 1881, No. 35, 36; *Schmidt's Jahrb.*, 193, 2.)
351. GOUQUENHEIM.—Salvatic Miliary Tuberculosis of the Pharynx. (*L'Union Médicale*, Aug. 1882.)
352. TRÉLAT.—Epithelioma in the Pharyngeal Region. (*Gazette des Hôpitaux*, Oct. 10, 1882.)
353. BAYER.—Tonsillar Mycosis, Lingual and Pharyngeal. (*Revue Mensuelle de Laryngologie*, Nov. 1882.)
354. HACK.—Reflex Neuroses and Nasal Affections. (*Berlin. Klin. Wochenschr.*, No. 25, June 1882.)
355. BRESGUL.—Bronchial Asthma and its Relation to Chronic Nasal Catarrh. (*Prager Med. Wochenschr.*, No. 25, 1882.)
356. JACQUIN.—The Relation between Asthma and Nasal Polyp. (*Gazette des Hôpitaux*, June 3, 1882.)
357. DELAVAN.—Hypertrophy of the Osseous Structure of the Turbinate Bones. (*Archives of Laryngology*, Vol. iii., No. 3, July 1882.)
358. MASON.—An Improved Method of Treating Depressed Fractures of the Nasal Bones. (*Anatomical and Surgical Society of Brooklyn: Half-Yearly Compendium of Medical Science*, July 1880.) Reprint.
359. BRIEGER.—A Case of Laryngeal Perichondritis. (*Monatsschrift für Ohrenheilkunde*, No. 7, 1882.)
360. WEIR.—Hæmorrhage after Excision of the Tonsil. (*Lancet*, Oct. 1882, p. 715.)
361. HOLMES.—The Treatment of Enlarged Tonsils. (*Lancet*, Nov. 1882, p. 798.)

ART. 340. *Wood and Formadon Diphtheria*.—Drs. Wood and Formad, in concluding their report on Diphtheria (*Supplement*, No. 17, *National Board of Health Bulletin*, Washington, Jan. 21, 1882), formulate the following as the facts they have established regarding the nature of this disease. 1. The micrococci of diphtheria do not differ, so far as observed, from those of furred tongue, &c., except in their tendency to grow in culture fluids. 2. The micrococci of furred tongue, or ordinary sore throat, have a less tendency to grow under culture than have the micrococci of endemic non-malignant diphtheria. 3. The micrococci of endemic, or non-malignant diphtheria, have a much less tendency to grow under culture than have the micrococci of malignant diphtheria. 4. The rapidity of growth of the micrococci is in direct proportion to the malignancy of the case yielding them, and its contagiousness. 5. On exposure to the air, diphtheritic membrane of the most virulent type loses its contagious power, and the micrococci *pari passu* lose their power of growing in culture-fluids. 6. Under successive generations of artificial culture, the diphtheritic micrococci lose their growth and activity, and also their power of infecting the rabbit. 7. It has not been experimentally directly proven, but it is a necessary inference from the two facts just stated, that under certain favouring circumstances the sluggish micrococcus puts on growth-activity, and in all probability *poisonous properties*.

8. Every grade of case can be found in man from an ordinary sore throat, through simple pseudo-membranous angina and tracheitis, up to malignant diphtheria. 9. Any inflammation of the trachea of sufficient intensity may cause the formation of a pseudo-membrane. 10. A case may begin as one of sthenic 'pseudo-membranous croup,' and end as one of adynamic 'diphtheria,' with blood-poisoning; and in cases of this character not unfrequently no exposure to contagion is discoverable, and there is clinically every reason to believe that the blood-poison has been developed within the body of the patient. The theory of the disease which they would deduce from these facts is that the micrococcus, which directly or indirectly causes the diphtheria, is not a specific organism different from that common to healthy and inflamed throats, but is an active state of that organism; that certain circumstances outside of the human body are capable of throwing this common micrococcus into this condition of active growth, and engendering an epidemic of diphtheria. When diphtheria is thus epidemic, the micrococci alight upon a throat, and, if it have little resisting power, as in a child, inflame it, or increase a catarrh already existing into a violent inflammation, and also rapidly enter the blood and cause systemic poisoning. On the other hand, a catarrh in a weakly subject may, in the beginning, be simply an inflammation from cold; but the ordinary micrococci in the throat or mouth, favoured by the special conditions, &c., may gradually change from the dormant to the active state, and by-and-by act upon the throat, and at last force their way into the system, and a self-generated diphtheria be formed out of a 'cold.' It has already been abundantly proven that there is no specific character detectable in the micrococci of diphtheria. The history of wounds infected with diphtheritic poison, and of those infected with hospital gangrene, lends further countenance to the idea that diphtheria and certain other septic diseases are really different manifestations of the one affection; the difference in symptoms depending rather upon the difference in the location than in a difference of the nature of the septic process.

341. *Weist on Foreign Bodies in the Air-Passages*. A paper on this subject was read by Dr. Weist before the American Surgical Association at Philadelphia (*American Practitioner*, Aug. 1882). Dr. Weist has collected 1,000 cases of foreign bodies in the œsophagus, of which 897 have never been published. His statistical investigations lead him to believe that some modification in the general surgical rule for treating foreign bodies in the air-passages is called for. He attempts to show that the present accepted rule is too broad; that in many cases, when it is certainly known that the trachea or bronchi contains a foreign body, the patient will be more likely to recover if trusted to the chance of spontaneous expulsion, than he will if subjected to operation. In 63 of the cases the foreign body was removed by forceps, &c., without the aid of bronchotomy. These he excludes, in calculating the chances of recovery afforded by bronchotomy compared with the plan of non-interference. There remain 937 cases; of these 599 were not subjected to bronchotomy: 460 recovered, or 76.79 per cent.; 139 died, or 23.20 per cent. Bronchotomy was performed in 338 cases with 245 recoveries, or 72.48 per cent.; 93 patients died, or 27.42 per cent., a difference in favour of non-interference of 4.31 per cent. The foreign body that most frequently finds a lodgment is a grain

or corn (maize), 177 examples occurred; next a water-melon seed, 109 cases; next a bean, 90 cases; then a coffee-grain, 59 cases. In the cases where the foreign body was a grain of corn, non-interference gave 29 per cent. more recoveries, and where the foreign body was a water-melon seed, 16.86 per cent. more than where bronchotomy was performed. He sums up as follows. 1. When a foreign body is lodged either in the larynx, trachea, or bronchi, the use of emetics, &c., should not be employed, as they increase the sufferings but not the chances of recovery. 2. Inversion of the body and succussion are dangerous, and should not be practised unless the windpipe have been previously opened. 3. The presence simply of a foreign body in the larynx, &c., does not make bronchotomy necessary. 4. While the foreign body causes no dangerous symptoms, bronchotomy should not be performed; nor, 5, as a general rule, when it remains fixed in the trachea or bronchi. 6. When symptoms of suffocation are present, or occur at frequent intervals, bronchotomy should be resorted to without delay. 7. When the foreign body is lodged in the larynx, there being no paroxysms of strangulation, but an increasing difficulty of respiration from œdema or inflammation, as also when it is movable in the trachea and excites frequent attacks of strangulation, bronchotomy should be performed.

342. *Mackenzie on Tubercular Tumours of the Windpipe and Tuberculosis of the Laryngeal Muscles.*—Dr. J. N. Mackenzie (*Archives of Medicine*, Vol. iii., No. 2, Oct. 1882) relates two cases of tubercular tumours of the windpipe, and a case of tuberculosis of the laryngeal muscles. The first case occurred in a man who died of carcinoma of the stomach. Secondary deposits were present in the liver, kidneys, spleen, and other organs. The lungs contained tubercular cavities, but the larynx, pharynx, and trachea were free from inflammation and ulceration. The tracheal and retrotracheal glands were enlarged, tumefied, and caseous. Just above the bifurcation of the trachea in the posterior wall, there was a well-defined circumscribed tumour about the size of a small bean, of an uniformly even and smooth appearance. It was covered by the mucous membrane, and was dense in consistency, giving to the touch the sensation of a hard carcinomatous nodule, for which it was at first mistaken. A similar growth was found in the pericardium. The microscope showed that the growth had its origin in the submucous tissue, and consisted of an aggregation of distinct tubercular nodules, set in a more or less well-marked vascular network of hypertrophied connective tissue. In some of the nodules, caseation was far advanced. The tumour in the pericardium presented the same characters. The rest of the organs were demonstrated by the microscope to be cancerous.

The second case died of pulmonary phthisis. The whole upper compartment of the larynx was occupied by a smooth dense moderately hard nodular growth, made up of an aggregation of nodules about the size of a split-pea, and having a similar microscopic appearance to the growth in the first case. There was no ulceration of pharynx, larynx, or trachea. The author thinks that these cases are unique.

The third case (tuberculosis of the laryngeal muscles) died of advanced phthisis. The histological changes in the laryngeal muscles were, first, a deposit of distinct miliary tubercles in the substance of and between the muscular fibres; and, secondly,

an alteration of the fibres themselves, viz., principally an increase in the size of the muscle-cells. These appearances are similar to those described by Heinze, and are corroborative evidence of the accuracy of his observation.

343. *Brown-Séquard on the Possibility of Introducing a Tube into the Larynx without causing Pain or Irritation.*—After having bared the larynx of a dog, rabbit, &c., and applied a very rapid current of carbonic acid to it, Dr. Brown-Séquard has found (*La France Médicale*, Oct. 3, 1882) that the sensibility of the mucous membrane is completely lost at the end of from fifteen seconds to two or three minutes; and that it is consequently possible to introduce a tube or finger in the cavity of the larynx, and to turn it and re-turn it without causing any irritation. This local anaesthesia lasts from two to eight minutes. The animals thus experimented on have apparently not suffered any bad effect either local or general.

345. *French on Photographing the Larynx.*—Dr. French (*Canada Medical and Surgical Journal*, 1882, p. 16) has succeeded in securing some very good results. He uses sunlight, and a small camera mounted on a tripod. The throat is illuminated with a plane mirror, with a central aperture five-eighths of an inch in diameter. The throat-mirror is attached to a rod fixed to the top of the camera. The plates (dry gelatine) are exposed from one to four seconds. The great trouble Dr. French has experienced is the impossibility of getting the whole of the laryngeal image in focus at the same time, and thus obtaining a perfect picture. None of his photographs show the entire larynx. Schmidt and Stein have both photographed the larynx, but Dr. French's results are said to be superior.

346. *Brogen on Wound of the Larynx with Tearing and Prolapsus of the Mucous Ventricle, and Fracture of the Corresponding Lateral Ala of the Thyroid Cartilage.*—The patient (*Revue Mensuelle de Laryngologie*, Nov. 1882) had been seized by the throat in a scuffle. The symptoms afterwards felt were singing in the ears, impairment of hearing on the right side, slight dyspnoea, and the sensation of a foreign body in the throat. Laryngoscopic examination revealed ecchymosis in all the right half of the larynx. There was cutaneous emphysema to a slight extent over the pomum Adami. It was a question whether the larynx had been fractured. When the swelling had subsided, the larynx was clearly seen to be asymmetrical, the right side being deeper and narrower than the left side. The epiglottis leant to the left side. It was seen after a few days that the right vocal cord had not been wounded, but upon it was a small tumour of the size of a pea, and adherent to the mucous ventricle. During phonation, paralysis of the right internal thyro-arytenoid muscle was remarked. The voice was hoarse, and easily changed in *timbre*. After a few days' rest, the swelling and the small tumour entirely disappeared; but the paralysis of the cord persisted. Cutaneous faradisation was tried, and this treatment was followed by a marked improvement in the voice, and the complete approach of the vocal cords in the middle line. The patient was pronounced well after fifty days of treatment. The paralysis had evidently been due to a contusion of the inferior laryngeal nerve, which had been squeezed between the thyroid and the cricoid cartilages.

347. *Kraicz on Œdema of the Glottis.*—In view of the deep interest attaching to cases of sudden

œdema of the glottis following upon deep-seated suppuration in the neck, about the fauces and retro-pharynx, Dr. Kraicz relates the following cases (*Wien. Med. Wochens.*, No. 22, 1882). 1. The patient, a man 58 years old, had suffered for three days with pain in the throat, difficulty in swallowing, and, for the last few hours, with dyspnoea. The temperature was very high, respiration slow, inspiration prolonged, and the face and lips slightly blue. Nothing abnormal was seen in the mouth or throat. Further inspection of the larynx could not be made, owing to the restlessness of the patient. The neck from the jaw to the sternum was much swollen, and excessively painful to the touch. Deep-seated inflammation, with commencing laryngeal stenosis, was diagnosed. Ice was applied, and the instruments for laryngotomy were ordered to be in readiness. Scarcely had a quarter of an hour elapsed when the patient suddenly rose, sank back, and ceased to breathe. The operation was performed with the greatest celerity, in spite of the great infiltration of the connective tissue; but it was too late to save life; and at the *post mortem* examination, suppuration of the connective tissue of the right side of the neck, also tracking along the course of the large vessels and deep muscles, œdema of the connective tissue, perichondritis of the right ala of the thyroid cartilage, and œdema of the glottis, were discovered. 2. A man who had been ill only two days was brought to the hospital, with difficulty in breathing and swallowing. Considerable œdematous swelling of the uvula and soft palate was found. The epiglottis projected, and was firm, elastic, and semi-globular in shape. Dr. Kraicz made numerous incisions in the œdematous soft palate, and the symptoms decreased for a time. But, as they came on again with increased temperature, tracheotomy was at once performed without waiting for more threatening symptoms. The third day after the operation, a quantity of pus and blood was discharged from the epiglottis. The cannula was worn for seventeen days. 3. In a third case, which, however, Dr. Kraicz did not see during life, a soldier had complained of sore throat on a two days' march with his regiment, but had not fallen out, nor on his return to the camp failed in any of his usual duties. He went to bed, and in the morning was found dead. A large abscess of the tonsil and œdema of the glottis were found at the *post mortem* examination. Dr. Kraicz publishes these cases as a warning of the danger, when inflammation exists in and around the larynx or beneath the deep fasciæ of the neck, of delaying tracheotomy until symptoms of asphyxia come on.

348. *Harrison on Fracture of the Thyroid Cartilage*.—A patient, 63 years old, received a kick upon the throat (*Lancet*, June 17, 1882). He immediately experienced a considerable difficulty in breathing, the sides of the larynx began to swell, and the respiratory trouble became so great that tracheotomy was performed to prevent asphyxia. An examination made shortly afterwards showed that the thyroid cartilage was fractured. The patient was fed entirely for four days by the rectum. He then began to swallow liquids, and ten days after the injury was discharged well with the voice slightly hoarse.

349. *Landerer on Extirpation of the Larynx and Pharynx*.—The author (*Centralbl. für die Med. Wiss.*, Sept. 23, 1882) reports four cases. The first was a man, 36 years old, the subject of cancer of the larynx. He was tracheotomised Sept. 1879;

the cancer was removed by laryngotomy on Feb. 3, 1880, and the whole larynx removed Feb. 26, 1880. The patient has remained well for eighteen months. The second was a man aged 52. Tracheotomy was performed March 2, 1880, and the larynx removed April 15. The patient has remained well for seventeen months. The third was a woman, aged 45, the subject of cancer of the pharynx and larynx. Tracheotomy was performed Oct. 17, 1880, and the larynx and pharynx were removed Nov. 10. The patient died in March 1881 with a return of the growth. The fourth case was a woman, aged 56, with pharyngo-laryngeal cancer. Tracheotomy was performed Dec. 9, 1880, and the larynx extirpated Jan. 17, 1881, but the patient died a week afterwards of pneumonia. The author recommends always performing tracheotomy before extirpating the larynx, since it gives the patient a chance of getting up his strength, it moderates the septic bronchitis which may result from the operation, and it allows the air-passage to be solidly united to the skin, thus preventing the diffusion of the pus which results from the peritracheal inflammation. Moreover, it accustoms the mucous membrane of the air-passages to the direct action of the air, and to the irritation produced by the cannula. The trachea should be opened as low down as possible, so that the tracheotomy-wound may not be interfered with when the extirpation of the larynx is performed. The entrance of blood into the air-passages should be avoided by means of the tampon-cannula. Dr. Landerer leaves the wound open without suturing it, and feeds the patient with the œsophageal tube. To prevent the entrance of pus into the mediastinum, and especially secondary pneumonia (which has been the cause of death in nine of the eleven fatal cases out of twenty-eight operations), he advises that the patient should be placed with his head backwards, so that the tracheal opening shall be the most elevated part of the wound for the first six or eight days.

350. *Herz on Chronic Pharyngitis and Retropharyngeal Lymphadenitis in Children*.—With regard to the frequency with which chronic pharyngitis occurs in children (*Wien. Med. Wochens.*, 1881, pp. 35-36; *Schmidt's Jahrb.*, 193, 2), the author has generally observed it after the third year of life, and only before that age when unfavourable constitutional or hygienic conditions are present. The younger children are generally troubled with a short broken cough, the elder children with a feeling of roughness in the throat, and with a hoarseness, or obstinate cough, often causing sickness. Dr. Herz found in chronic pharyngitis hyperplasia of the axillary and inguinal lymphatic glands, often the result of anæmia, scrofula, tuberculosis, and syphilis. In all cases the treatment was directed to the general affection, and only exceptionally was a local treatment necessary. Dr. Herz also gives in detail ten cases of retropharyngeal lymphadenitis in children. The ages ranged from one to two and a half years. Three were apparently healthy, three anæmic, three scrofulous. The lymphatic swellings varied from the size of a hemp-seed to that of a pea or bean. They generally occurred in the winter or spring, and were accompanied by acute catarrhal symptoms. The chief inconvenience was the difficulty in swallowing, snoring, and the stiffness of the neck from the swelling of the cervical glands. The treatment was essentially antiphlogistic (cold drinks and compresses, sucking ice, &c.), and the throat was painted with iodide of glycerine.

351. *Gouguenheim on Subacute Miliary Tuberculosis of the Pharynx*.—The patient, the subject of a communication read before the Société Médicale des Hôpitaux, July 28, 1882 (*L'Union Médicale*), a woman, aged 25, had suffered for six months with a sore throat which had been treated without success. She could no longer swallow either liquids or solids. The voice had a marked nasal sound. There was an extensive ulceration of the isthmus of the fauces. The soft palate was dark red and slightly swollen, with ragged edges. The anterior and posterior pillars were ulcerated, and the right tonsil was especially affected. The uvula was ulcerated at its attachment, was greatly hypertrophied, and yellowish-white in colour. Dr. Gouguenheim did not hesitate to excise it. On cutting through it, it appeared composed of a very hard tissue, greyish in colour, throughout which yellowish points were scattered, softer, and evidently caseous. With the microscope, a submucous tubercular infiltration invading all the thickness of the uvula was recognised. Each day a dressing of iodoform and ether was applied to the ulcerated surface of the soft palate. At the end of fifteen days, the cure was almost complete. The patient, with caution as to the choice of food, could swallow easily. At the end of a month there was some sign of a return of the ulceration. The application of iodoform was renewed, but was not at first successful. The patient complained of considerable pain, and the affected part ulcerated afresh. The iodoform appeared inefficacious until the ulceration was pronounced, but then rapidly modified it until recovery was again complete.

352. *Trélat on Epithelioma in the Pharyngeal Region*.—A man, 58 years old (*Gazette des Hôpitaux*, Oct. 10, 1882), had for a year observed a swelling of the glands under the angle of the lower jaw on the right side, and three months later on the left side. These glands had now formed one mass, which appeared as a lobular tumour adhering to the deeper parts. He was totally deaf on the right side. On examination, an epitheliomatous mass was seen occupying the right side of the pharynx, in the region of the right Eustachian tube. Dr. Trélat had a similar case ten years ago, on which he refused to operate, and the patient died four or five months afterwards. He also refused to operate upon an epithelioma of the tonsil and pharynx, which was removed by another member of the profession, but which returned a month afterwards, the patient dying three weeks later.

353. *Bayer on Tonsillar Mycosis, Lingual and Pharyngeal*.—Dr. Bayer (*Revue Mensuelle de Laryngologie, d'Otologie, &c.*, Nov. 1882) has had two of these cases under his care, similar to that published a short time since by Dr. Fraenkel. 1. A lady, 28 years old, consulted Dr. Bayer for a constant tickling sensation in the throat. Upon the tonsils numerous white spots were seen, but no redness nor inflammation. The spots were hard and projecting, forming small pointed cones, without any resemblance to the white membranes or concretions sometimes met with in that situation. They were still more abundant upon the base of the tongue, appearing to proceed from the hypertrophied circumvallate papillae. These points were firmly implanted, and could only be removed by tearing them off with the forceps. Dr. Bayer extracted each separately, as if they were not completely destroyed they grew again. After this treatment they did not recur. 2. A girl, aged 15, had for two months been

treated for diphtheritic sore throat. Repeated cauterisations with nitrate of silver produced no effect. Hundreds of projections, white at their base and dark at their extremities (from the nitrate of silver), grew from the tonsils; some were solitary, others attached at their base, forming a kind of cock's-comb. They gave to the touch the feeling as when the finger is passed over a brush. Their development in the circumvallate papillae was less advanced. They were radically extirpated as in the preceding case. When microscopically examined, they were found to be composed of yellowish masses of pavement-epithelium, undergoing horny transformation, and of small rods and fibres, among which were scattered round isolated granules. The fibres and rods were for the most part collected longitudinally into bundles with well cut extremities. It was probably for this reason that Professor Sadebeck called the microphyte of Fraenkel bacillus fasciculatus, who also recognised in the small round granule the spore of the bacillus. He considered the rods and fibres as the first stage of their development. Although these cases are rare in literature, cases are known where fungi growing in the mouth have invaded distant organs. In the cases of Dr. Bayer, as in that of Fraenkel, no further trouble was produced by the presence of the fungi than the local affection.

354. *Hack on Reflex Neuroses and Nasal Affections*.—The author, impressed with the idea that investigation of the nervous connection between the nose and the respiratory organs might be better made when the nasal affection was slight, and the nerves consequently more accessible to irritation than when lying under hypertrophied connective tissue, or under nerveless tumours, has made it his practice for the last three years to closely question each patient who consulted him for any cause as to the reflex nervous disturbances they might have experienced, and of making a thorough examination of the nose. He publishes the following cases (*Berlin. Klin. Wochenschr.*, No. 25, June 1882). 1. A lady for over twenty years had suffered from daily fits of prolonged sneezing (sixty to eighty times) followed by exhaustion and headache. Not the slightest symptom of a nasal affection existed, but Dr. Hack found swelling and spotty injection of the mucous membrane over the right middle spongy bone. He applied the galvanocautery to the spot, and after this one operation the fits of sneezing entirely ceased. The disappearance of the headache, which also resulted from this treatment, led Dr. Hack to question whether many attacks of migraine may not have a reflex origin in the nose. 2. An officer had for eight years suffered from violent attacks of sneezing similar to the above, and for the last four years from severe bronchial asthma. Diffuse swelling of the mucous membrane over the lower and middle spongy bones of both sides was found; the surface of the mucous membrane was slightly granular, and nodular thickening was discovered on both sides of the septum posteriorly. These conditions had led to a narrowing of the nasal cavity, and the constant efforts to overcome this hindrance had served to keep up the inflammation. Both the sneezing and asthma disappeared after a few applications of the galvanocautery. 3. Obstinate spasmodic coughing had affected the patient for several years, and by disturbing the night's rest had much impaired the general health. Applications to the larynx gave no relief. There were no symptoms of any affection of the nose, but a fibrous polypus, of the size of a pea,

was found on the right middle spongy bone. The cough was entirely relieved by its extraction. 4. The patient had complained greatly of frequent attacks of cold in the head, and latterly of severe supra-orbital neuralgia and flickering before the eyes. These neuralgic attacks became more frequent and violent. On the left middle spongy bone, a small mass of deep red and sensitive granulations was found, and was destroyed in one sitting. All distressful symptoms from that time disappeared. 5. The patient had already undergone twelve operations for the removal of nasal polypi. Each return of the growth was accompanied by severe pain in the ciliary region of both globes. Upon the extirpation of the polypus, this pain ceased. 6. The patient had suffered much from repeated colds in the head, and from radiating pains in the upper and lower lids of the right eye. Considerable swelling of the mucous membrane over the right lower spongy bone was found; and after one cauterisation of this the neuralgic trouble ceased, and the attacks of catarrh diminished in frequency and severity. 7. Neuralgic attacks, beginning over the nose and spreading back over the base of the skull, in the course of the trigeminal nerve, had for some time afflicted the patient. In the right nostril, a thickening of the mucous membrane of the middle spongy bone was found, and on the left posterior nares, a polypus of the size of a hazel-nut. Cauterisation of the first and extirpation of the second produced a complete and lasting relief. 8. Another patient had suffered for many years with nasal catarrh and frontal pain. The memory became affected, and the spirits greatly depressed. Rhinoscopic examination disclosed a number of polypi of all sizes, growing from the middle meatus. Their removal was followed by complete restoration to health. 9. Spasm of the glottis and alarming dyspnoea had frequently attacked this patient in the night. Great injection of the pharyngeal mucous membrane was discovered, and cauterised with nitrate of silver. One attack only of the spasm recurred. 10. This case was selected from many similar ones. The patient complained of a constant tickling sensation in the throat, often occasioning him to vomit. 11. A number of bright red granulations were revealed by the mirror, clustered in the niche behind the tonsils of both sides, and extending into the naso-pharyngeal space. The galvano-cautery was applied to these, and no further trouble experienced. 12. In this case, the patient experienced a sensation of a foreign body in the throat and a moderate production of phlegm, which was referred by Dr. Hack to the presence of some well-developed granulations. The patient also suffered from epileptic fits occurring fortnightly. After cauterisation of the granulations, the fits occurred daily for eight days, then became more seldom, and finally only at intervals of from two to three months. Dr. Hack publishes this case with reservation, but thinks it suggests that reflex epilepsy, like asthma, may have its origin in nasal and pharyngeal affections. All Dr. Hack's observations serve to show that trifling and symptomless affections of the nose may be accompanied by very severe neuroses, and that neuroses thus caused are relieved quickly and effectually.

355. *Bresgeu on Bronchial Asthma and its Relation to Chronic Nasal Catarrh.*—The author is convinced (*Prager Med. Wochenschr.*, No. 25, 1882) that in all asthmatic patients chronic inflammation is present in the nose, and probably throughout the

upper air-passages, which it should be the first aim to relieve. Next in importance to the galvano-cautery treatment is painting the mucous membrane of the pharynx and nose with iodide of glycerine, and blowing powdered nitrate of silver into the nose. The reporter of this paper, Dr. Schutz, has during the past year observed three cases of pronounced bronchial asthma. In one case there was extreme chronic swelling of the nasal mucous membrane, especially over the spongy bones and in the naso-pharyngeal space. In the second case, there was chronic thickening of the mucous membrane of the spongy bones and granular pharyngitis. In the third case there was chronic naso-pharyngeal catarrh. In a fourth case, seen and described by him a few years ago, extensively spreading papillary growths were found on the nasal mucous membrane. In all these cases the impediment to the passage of air through the nose, and the nasal character of the voice, led to a suspicion of an affection of the nasal cavity. In two cases only, where the asthma had existed for years, was a local treatment adopted, and the improvement here obtained was lasting.

356. *Jacquin on the Relation between Asthma and Nasal Polypi.*—Dr. Jacquin reports a case (*Gazette des Hôpitaux*, June 3, 1882) of mucous polypi in the nose, accompanied by asthma, in an arthritic and emphysematous subject. The removal of the polypi did not affect the asthmatic trouble. The author, however, believes that the polypi had something to do with producing the asthma, as, by forming an obstacle to respiration, they would prevent the pulmonary vesicles from completely emptying themselves, and ultimately cause dilatation of these vesicles, which would necessarily remain after the polypi had been removed.

357. *Delavan on Hypertrophy of the Osseous Structure of the Turbinate Bones.*—Dr. Delavan, in a paper read before the American Laryngological Society (*Archives of Laryngology*, Vol. iii., No. 3, July 1882), discusses the question of the not unfrequent occurrence of actual hypertrophy of the turbinated bones, in contradistinction to mere hypertrophy of the mucous membrane, which is generally understood by the term. His attention was called to the subject whilst making a dissection of the nasal fossae. In this case, the middle turbinated bone was found to be in a condition of unquestionable hypertrophy, and in addition there was a deflection of the nasal septum, and the side towards the concavity was completely blocked up by the hypertrophied bone. The importance of the condition at once suggested itself to Dr. Delavan, and he made a careful examination of all the skulls in the museums of Washington, Philadelphia, and New York. In most of the collections the turbinated bones were in an imperfect state; but in the cabinet of Professor Hyrtl, in the College of Physicians in Philadelphia, the parts were found in a perfect state of preservation. Of 140 skulls thus examined, there was hypertrophy of the middle turbinated bones in eleven. The hypertrophy was, as a rule, symmetrical, extending throughout the whole of the antero-posterior diameter of the bone in about the same relative degree, and had nothing about it of the nature of an exostosis. In all the cases of hypertrophy of the middle turbinated bones there was a deflection of the nasal septum, the hypertrophy being on the concave side of the septum; a fact believed by Dr. Delavan to be due to the deflected septum giving the bone on that side greater opportunities of

expansion than the other. 'Heretofore,' he says, 'operative efforts in nasal stenosis consequent upon deflection of the nasal septum have been directed solely to the relief of the occlusion of the narrower nostril. The presence of a hypertrophied turbinated bone on the concave side has been unrecognised, and any operation for rectifying the deflection would only result in making the occlusion of the wider nostril more complete; and, since the nostril towards the convexity of the septum is often more pervious than the other, the operation would fail of its object.' [The reporter has during the last few years had ten or twelve cases of deflected nasal septa under his care, and in none of these was there any hypertrophy of the spongy bone: forcible straightening of the septum was quite sufficient to relieve the symptoms resulting from the stenosis.] Dr. Delavan recommends the removal of the hypertrophied turbinated bone.

358. *Mason on an Improved Method of Treating Depressed Fractures of the Nasal Bones.*—Dr. Mason, in a paper read before the Anatomical and Surgical Society of Brooklyn, arrived at the following conclusions from experiments. 1. In all fractures of the nasal bones with depression of the bridge, the nasal process of the superior maxilla are necessarily involved. 2. Both nasal processes are usually, and the line of fracture is nearly, on the same plane on either side. 3. In treating such cases, the great difficulty is our inability in keeping the fragments in place, the sides as well as the centre of the arch being broken down. The method Dr. Mason suggests is to pass a surgical needle of ordinary size through the line of fracture through the nasal process on each side, so that it shall afford not only a posterior support to the nasal bones, but shall act as a tie-rod, holding together the sides of the nasal arch. In the only case in the living patient in which this treatment was adopted, the needle was retained *in situ* for eleven days. There was then ulceration at the seat of the needle-puncture, accompanied by periosteal thickening, which rendered the nose a trifle more prominent than normal at that point. Dr. Mason believed that in time this thickening would be absorbed, and that the cicatrix would be scarcely noticeable.

W. J. WALSHAM.

360. *Weir on Hemorrhage after Excision of the Tonsil.*—Dr. Weir, in the *Lancet*, Oct. 1882, p. 715, draws attention to a case of hemorrhage after excision of the tonsil. A young man had one tonsil removed with a guillotine; there was slight hemorrhage at the time, but, several hours after, patient lost a great quantity of blood, the hemorrhage being at last arrested by pressure, and application of persulphate of iron. Dr. Weir thinks that the cause of the violent hemorrhage was the cutting through one of the palatine arteries which lie in the muscular tissue of the palate. The tendency to recurrence of hemorrhage is increased from the constant movement to which the wounded vessel is exposed.

361. *Holmes on the Treatment of Enlarged Tonsils.*—Dr. Gordon Holmes, in the *Lancet*, Nov. 1882, p. 798, gives some clinical observations on the treatment of enlarged tonsils. 1. *Excision* by means of the tonsillotome is to be preferred to removal by the knife, and the safest instrument is that of Fahnstock; it easily enters the tonsil, and enables the operator to take off as much as he likes; whilst with Physick's instrument one is not always able to cut through the tonsil, and may even slip

over it all together. Hemorrhage is not so likely to occur with this means as when the knife is used. 2. *Caustics* are sometimes necessary in the case of children, or when enlargement is not sufficient to render excision necessary; the most efficient manner of applying caustics is to press pointed sticks of nitrate of silver or chloride of zinc into the orifices of the lacunæ on the pharyngeal side of the gland. Small sloughs are thus formed, and the tonsil is hollowed out in one direction whilst being contracted into much smaller bulk by the subsequent cicatrization in another.

RICHARD NEALE, M.D.

DISEASES OF THE NERVOUS SYSTEM.

RECENT PAPERS.

362. GODNEFF.—On Aphasia. (*Mediz. Obozr.*, Feb. 1882, pp. 345-6.)
363. SKOLSUBOFF, D. P.—Two Cases of Disseminated Cerebro-spinal Sclerosis. (*Mediz. Obozr.*, Jan. 1882, pp. 4-9.)
364. MARIE.—The Conditions of the Pupils in Epileptics apart from Attacks. (*Archiv. de Neurol.*, Vol. iii., p. 42.)
365. CHARCOT AND RICHER.—The Different Grades of Nervo-Muscular Superexcitability during Hypnotism. (*Ibid.*, Vol. iii., p. 129.)
366. FERÉ.—Cases of Hystero-Epilepsy. (*Ibid.*, Vol. iii.)
367. HUCHARD.—The Character, Habits, and Mental Condition of Hysterical Women. (*Ibid.*, Vol. iii.)
368. ESTORE.—Electric Resistance in Hemi-anæsthesia. (*Ibid.*, Vol. iv.)
369. SJOENMAKER.—Weight and Pulley Extension for Sciatica. (*New York Med. Record*, 1882, p. 694.)
370. RUMPF.—The Treatment of Tabes Dorsalis. (*Neurol. Centralbl.*, Nov. 1882.)
371. FRIEDREICH.—The Treatment of Hysteria. (*Virchow's Archiv.*, Band xc., Heft 2, p. 220.)
372. EBSTEIN.—The Causes of Abdominal Tympanites in Hysteria. (*Neurol. Centralbl.*, Jan. 1883, p. 25.)
373. HIRSCHBERG.—Impaired Vision in General Paralysis of the Insane. (*Neurol. Centralbl.*, Jan. 1883, p. 32.)
374. ABADIE.—Syphilis as a Cause of Locomotor Ataxy. (*Gaz. Heb. de Méd. et de Chir.*, 1882, No. 48.)
375. VICENTE.—Hemi-anæsthesia and Aphasia from Lead-poisoning. (*Le Progrès Méd.*, 1882, No. 49.)
376. RIEDEL.—Paralysis of the Recurrent Laryngeal Nerves from the Use of Carbolic Acid in a Case of Extirpation of a Goitre. (*Centralbl. für die Med. Wiss.*, No. 34, 1882.)
- 377.—SHELMANN AND SCHMITT.—Tumours of the Fourth Ventricle. (*Archiv. Gén. de Méd.*)
378. LÉPINE.—Trismus of Cerebral Origin. (*Revue de Méd.*, No. 10, 1882.)
379. OTT.—The Diagnosis of Tubercular Meningitis. (*Philad. Med. Times.*)
380. VIERORDT.—Atrophic Paralysis of the Upper Extremity. (*Deutsche Arch. für Klin. Med.*, Band xxxi.)
381. OLIVER.—Spasm of the Facial Nerve. (*Med. Times and Gazette*, Nov. 1882, p. 604.)
382. BARTLOW.—The treatment of Infantile Paralysis. (*Brit. Med. Jour.*, Dec. 1882, p. 1248.)

ART. 362. *Godneff on Aphasia.*—At a meeting of the Kazan Medical Society, Dr. Godneff related (*Mediz. Obozr.*, Feb. 1882) three interesting cases of aphasia. One of these cases was that of a robust, non-hysterical, and well-educated lady, who, during the eighth month of each of her eight successive pregnancies, presented about four attacks of paraphasia, all of

which came on invariably in the day-time, and lasted from a few to twenty-four hours. Usually, one or two hours' staying in a darkened room made the disorder disappear. The most striking feature of the case, however, was that the patient fully retained her normal power of writing, but could not read what she had written, though she understood its meaning. This co-existence of paraphasia and paralexia with normal graphic speech is so extremely rare that Dr. Godneff was able to find in the whole literature only one similar case (that of Osborn in 1833). The second, the author's case, was that of paragrafia in a schoolboy, who, being called out by a schoolmaster to write down any dictated phrases, always began to scribble a confused collection of meaningless words having no connection whatever with the task given. The patient was fully conscious of the absurdity of his doings; and, in order to prove that he knew his task, he always quite correctly uttered aloud the very phrase he was not able to express in writing. Such attacks of paragrafia generally lasted from ten to fifteen minutes, and then the normal graphic power returned to him. The third case is very like to one reported by Graves. A plethoric gentleman had been attacked with right hemiplegia and loss of consciousness. Having recovered the latter, he found himself unable to speak, but could understand what others spoke. Dr. Godneff saw him at the end of four months after the apoplectic attack, and found his condition as follows. There was present slight right hemiparesis; consciousness and general memory were normal; the patient's vocabulary consisted of twelve to fifteen words; he could easily enough copy all letters of the alphabet; but, when he attempted to explain himself on paper, or to write down the words dictated, he could only represent each word by its initial letter (e.g., when he was asked to write the name of a town, Ekaterinburg, he put only E on the paper). Being questioned, the patient proved to be fully aware of his imperfect writing, but the initial letters of words were all that he could write or recollect.

363. *Skolossoboff on Two Cases of Disseminated Cerebro-spinal Sclerosis.*—Dr. D. P. Skolossoboff describes (*Mediz. Obozr.*, Jan. 1882) in considerable detail two instances of disseminated cerebro-spinal sclerosis, one of which was seemingly of traumatic origin, and presented all the typical features of this affection. The necropsy fully verified the diagnosis of the nature and localisation of the disease in this patient. In the second case there existed symptoms closely resembling those of the form which had been described by Charcot under the name of 'amyotrophic lateral sclerosis.' The case was that of a peasant woman, aged forty-five, who, three months before her admission, fell through some recently formed ice into a pond, remained there, being immersed up to her neck, about two hours, and afterwards could not move any of her limbs. Within a short time after the accident, there gradually developed muscular atrophy and contractions. On admission the patient presented (1) almost complete paralysis of all four extremities, which were permanently flexed in the hip-, knee-, elbow- and wrist-joints, the feet being directed inwards; (2) paresis of the intercostal muscles and diaphragm; (3) spasmodic contraction of the sterno-cleido-mastoid and trapezius muscles; (4) extreme wasting of the muscles, both of the trunk and extremities. Eight months later, after gradual emaciation, she died from a supervening dysenteric attack. The post

mortem examination showed intense sclerotic changes, diffused in patches over the grey and white substances throughout the spinal cord, but reaching the highest degree about the levels of the second and seventh cervical vertebrae.

V. IJELSON, M.D.

364. *Marie on the Condition of the Pupil in Epileptics apart from Attacks.*—Marie (*Archives de Neurologie*, Vol. iii., p. 42, 1882) has, at the request of Charcot, investigated the habitual condition of the pupil in epileptics, which had been said by Carter Gray, of Brooklyn, to present special features, whereby, in the absence of other signs, we might distinguish epilepsy from hysteria, or make the diagnosis of epilepsy in persons in whom no attacks had been observed. These signs were:—1st, an unusual degree of dilatation, even when exposed to strong light; and, 2nd, far quicker changes in their diameter when exposed to variations of light. Carter Gray stated that he observed this peculiarity in all the sixty-three cases which he had examined, with the exception of two old people of 65 and 70 years, in whom, owing to advanced age, the pupils were less mobile. Marie first draws attention to the omission in Gray's paper of stating the intensity of the light and the mode of measuring the pupil employed in his researches, and then describes the method used by himself, which was to place the patient in a dark room, which was lighted up by two sperm candles at the right and left sides of the person to be examined, each being 45 centimètres distant from the corresponding eye, and the rays falling on the cornea at an angle of 45° to the visual axis. In order to avoid constriction of the pupil by accommodation, the patient was told to look at a slightly luminous point at the other end of the dark room. Another series of observations was made in daylight, under certain uniform conditions. Hutchinson's pupillometer was used, and fifty-three epileptic women were examined. The results were then compared with the condition of the pupil in ten healthy nurses. It now appeared that the diameter of the pupil averaged in the epileptics 53, while in the healthy nurses it was 63, that is, just the reverse of Gray's statement. Nor could Marie in any single case convince herself that the pupils changed more rapidly in epileptic than in healthy persons. In eight cases the pupils were unequal; in six the right, and in two the left, was largest. These differences amounted to from one-third to two-thirds of a millimetre.

365. *Charcot and Richer on the Different Degrees of Nervo-Muscular Superexcitability during Hypnotism.*—Charcot and Richer (*Archives de Neurologie*, Vol. iii., p. 129; 1882) find that the excessive excitability of the nervous and muscular systems which exist during hypnotic lethargy may vary in the same person, according to the regions of the body (as in the upper and lower limbs, the two sides of the body), from one instant to another, so that on certain days there is an accentuation, and on others an attenuation of the symptoms (most probably under the influence of emotions, fatigue, attacks, &c.); and finally in consequence of the repetition of the experiments, which has the tendency to increase the intensity of the phenomena. These latter belonging to the class of reflex movements, habit facilitates their development and perfects it. In some persons, indeed, all the symptoms may be induced at once; while in others there is a more gradual development. At first, the tendon-reflexes are apt to lead to more or less general muscular rigidity; afterwards this rigi-

dity becomes more localised in different muscles of the limbs, and the several proceedings by the aid of which they may be obtained may be classified according to efficacy, as follows. Stimulation of tendons occurs first; of the muscular substance afterwards; and of the nerve-trunks ultimately. In the face nervo-muscular superexcitability is only observed in the most fully developed cases. Occasionally the increase of tendon-reflexes and of tendency to rigidity disappears suddenly, and is succeeded by local paralysis of one side of the body, which remains when the patient awakes, but may then be made to disappear by certain manipulations. There are also considerable individual differences, according to special predisposition, so that in some persons the phenomena may become arrested at the different phases of their evolution.

366. *Féré on Unusual Cases of Hystero-epilepsy.*—Féré (*Archives de Neurologie*, Vol. iii., p. 161) describes the case of a young woman, aged 24, in whom the second period of the hystero-epileptic attack differed from the classical type described by Charcot. In general, the attack consists of three phases, viz., epileptoid, contortions, and emotional attitudes or delirium. The second period is generally marked by more or less extensive contortions, the body being alternately flexed and extended in its longitudinal axis. The present patient had suffered from nine to thirteen years of age from epileptic fits, which she had inherited from her mother. When menstruation became established, the epileptic attacks were transformed into those of hystero-epilepsy, and have never returned in their original shape. This substitution shows the part which the development of the sexual organs plays in the evolution of this neurosis. The hemi-anæsthesia was irregular, being interrupted by sensitive areas, two of which surrounded hysterogenic points, while the third was independent of the latter. In the second period the movements did not take place as usual, but in the opposite direction, the patient rolling round the longitudinal axis of the body. Féré thinks that such varieties may serve to explain certain apparently odd epidemics of convulsions, which cannot be referred to their real cause, if only one unalterable type be admitted.

In another case there were the symptoms of *hysterical zona* (zoster), which became developed in the course of the nerves which have their origin at the level of the dorso-lumbar hysterogenic zone. It lasted a month, during which the patient remained free from her usual attacks; and Féré considers it owing to local spinal congestion (*ubi dolor, ibi fluxus*), which, by distension of veins, would lead to compression of the nerves at the level of their exit from the vertebral canal.

Bourneville and Regnard have seen the anæsthesia and the attacks disappear in the last stage of pulmonary consumption; but it was impossible to decide whether the nervous derangement disappeared in consequence of the general exhaustion of the fever, or of any other cause. In another case the patient lost her anæsthesia during an attack of pleurisy, which lasted five weeks, so that great exhaustion is evidently not required for a temporary termination of the hysterical condition. Hysteria and rheumatic fever not unfrequently occur together, and Briquet thought that rheumatism was a predisposing cause of the hysteria, on account of the antiphlogistic treatment which it required. Féré has seen a case of rheumatic fever, during the course of which the

general and special anæsthesia, as well as the attacks, did not appear to be modified; so that, if the course of hystero-epilepsy is modified by certain intercurrent febrile affections, it is not the febrile element which causes such a modification.

367. *Huchard on the Character, Habits, and Mental Condition of Hysterical Women.*—Huchard (*Archiv. de Neurol.*, Vol. iii., p. 189) finds one of the first features of the character of hysterical women to be mobility, a kind of moral ataxy for their dearest interests, an absence of stability in their ideas and purposes. They are inclined to denunciation, opposition, contradiction, and controversy, vanity and pride, duplicity, untruthfulness, and deception. In spite of their mobile character, however, they are subject to certain fixed ideas, a kind of catalepsy of the intellect which returns again and again. Excess of lasciviousness and sensuality is, however, much rarer than is generally believed, for in many of them the sexual sensibility is almost absent; masturbation, erotic tendencies, and nymphomania being accidents which may complicate hysteria, but are in reality quite distinct from this neurosis. Another peculiar feature about them, is the indifference they feel about the various affections to which they are subject, and which is no doubt owing to cerebral laziness rather than to resignation. They have also a craze for new and odd medicines, even the most arrant quack finding ready belief with them.

368. *Estore on Electric Resistance in Hemi-anæsthesia.*—Estore (*Archiv. de Neurol.*, Vol. iv., Nov. 11, 1882) has studied the variations of resistance offered to the continuous current in its passage through the tissues in different persons, or in the same persons at different times. In these researches, the anode was placed on the sternum, and the cathode on the forearm, and the excursions of the galvanometric needle were then noted from one minute to another until it became stationary, when the maximum of intensity was attained, and the experiment finished. He thus found that there were two kinds of variations—viz., differences in degree, and differences in the time required for attaining the maximum, the former being the more frequent of the two. Thus, for instance, in one case a maximum of nine milliwebers would be obtained in five minutes, while in another case the needle required eight minutes to go up to three milliwebers. Vigouroux had already noticed in hysterical women affected with hemi-anæsthesia that the conductivity was less on the anæsthetic than on the healthy side; and Estore has confirmed this by observations on five hystero-epileptic patients in the Salpêtrière. He placed the anode into the arm-pit, and the cathode on the forearm, in order to localise the current in one side of the body, and showed the differences observed in diagrams. Thus in one case of complete left hemi-anæsthesia, the deflection in the left side amounted to 18°, attained in three minutes, and in the right side to 25°, attained in one minute. A second application of the current showed the same maximum in the two sides, but this was attained at once in the healthy side, and only in four minutes in the affected side; and a third application showed that the resistance had become equal on both sides. In another case the phenomena of transfer occurred, and it was then found that, together with the other symptoms, the degree of electric resistance had likewise been transferred, it being at first 50° in the right, and 40° in the left, and, after the transfer, 40° in the right and 50° in the left. In another case, the anæsthesia was

succeeded by considerable hyperæsthesia, and this was accompanied by a proportionate modification in the resistance. Estore considers the determination of electric conductivity in all patients indispensable for electro-diagnosis and electro-therapeutics, and thinks that it should form part of the usual semiology of diseases, and more especially of those of the nervous system.

369. *Shoemaker on Weight and Pulley Extension for Sciatica*.—Dr. Shoemaker (*New York Medical Record*, 1882, p. 694) has recorded three cases of sciatica benefited by extension, which constitutes a slight nerve-stretching. He finds that, by taking hold of the foot and making extension by pulling for a few minutes to the extent of fifteen or twenty pounds, information is gained as to the suitability of this treatment. He makes button-holes at the foot-end of the adhesive straps, so that the footpiece can be loosened when the pain subsides and the leg tires, and puts on a weight of eighteen to twenty pounds of sad-irons. In one case relief was gained in twenty minutes, in two others after a few hours. Prof. Rea, of Chicago, confirms the good results of nerve-stretching done without weights, simply by the patient lying on his back with the limb extended and bringing it up as straight as he can. This is a kind of self nerve-stretching, which enabled a student, who had contracted the morphia habit for the relief of obstinate sciatica, to get rid of this in a short time.

370. *Rumpf on the Treatment of Tabes Dorsalis*.—Dr. Rumpf, of Düsseldorf (*Neurol. Centralbl.*, Nov. 1882), while acknowledging the frequent connection between syphilis and locomotor ataxy, confesses that the results of a purely antisyphilitic treatment are good in exceptional cases only. Most cases which have been reported as benefited by such treatment were not such of ataxy proper. He reports, however, very good results from faradisation of the skin by means of a wire brush, in five out of six cases. Not only were the subjective complaints of these patients relieved, but cutaneous sensibility which had been lost was restored, the tendon-reflexes reappeared, the ataxy of movements and Argyll-Robertson's symptom vanished. In all these cases, there was no syphilitic history. In other cases, where venereal affection had existed, he combined antisyphilitic remedies with faradisation, and considers this the most successful treatment of this obstinate malady.

371. *Friedreich on the Treatment of Hysteria*.—A posthumous article by Prof. Friedreich, late of Heidelberg (*Virchow's Archiv*, Band xc., Heft 2, p. 220), recommends a local treatment of this malady by cauterisation of the clitoris. Referring to the late Baker Brown's practice of clitoridectomy in such cases, Friedreich argues that peripheral irritation, by masturbation, of several branches of the pudendal nerve, causes profound disturbance of the nervous system, such as epilepsy, hysteria, and other nervous and mental affections, which yield to the removal of the exciting cause. Friedreich cauterised the clitoris with the solid stick of nitrate of silver in eight cases of paraplegia, neuralgia, and hystero-epilepsy. In these cases the sexual organs were otherwise not affected, but masturbation was certain in some, and most probable in all. In some cases the symptoms were improved after the first cauterisation, and each further procedure led to more progress towards recovery. All the patients recovered. Two of them were not lost sight of, and in both cases

there were relapses, which, however, yielded to the same treatment. The cauterisation was done very energetically, and caused severe pain, which lasted for some time; and the patients were kept in bed until the pain had subsided.

372. *Ebstein on the Causes of Abdominal Tympanites in Hysteria*.—Ebstein (*Neurol. Centralbl.*, Jan. 1883, p. 25) thinks that the meteorism which sometimes occurs very suddenly in hysterical women is owing to incontinence of the sphincter of the pylorus, and that air which is swallowed by such persons proceeds at once from the stomach into the intestines. Magendie has already mentioned that, in some persons who are able to swallow air, this latter does not return into the œsophagus, but proceeds through the pylorus into the bowel, which it leaves *per anum*; and in such cases the whole abdomen is distended, and presents the appearance of tympanites. Ebstein had already, in a previous publication, drawn attention to the circumstance that, in patients whose pylorus is no longer able to close from structural disease, acute tympanites of the bowel may be experimentally caused by development of carbonic acid in the stomach, which will then at once escape through the insufficient pylorus. He now relates two cases of hysterical girls in whom acute tympanites became rapidly developed. In one of them it persisted for a considerable time, while in the other it disappeared spontaneously shortly after it had come on. In one case it was so severe that it caused ruptures in the rete Malpighii, from sudden extreme distension of the abdominal parietes. If an effervescing draught were given, the tympanites was instantly increased; and from this Ebstein concluded that there was loss of power in the sphincter pylori, and—no other symptom of gastric or intestinal derangement being present—that this was purely functional in character. Kussmaul, who has written an able paper on 'the peristaltic unrest of the stomach,' considers (in contradiction to this) that in the empty stomach the pylorus is physiologically incompetent to close; but in order to eliminate this objection, Ebstein has made his experiments generally after breakfast, and nevertheless found almost immediate increase of existing tympanites, as shown by changes in the percussion-note and visible increase in the distension of the abdomen.

373. *Hirschberg on Impaired Vision in General Paralysis of the Insane*.—Professor Hirschberg, of Berlin (*Neurol. Centralbl.*, Jan. 1883, p. 32), has investigated this subject, and doubts the accuracy of Dr. Clifford Allbutt's statement that he had seen atrophy of the optic nerve in forty-one out of fifty-three cases of this affection. On the contrary, this appears to be rare in progressive paralysis, and occurs at most in 4 or 5 per cent. of the cases which come under care. Other visual troubles are hemianopsia, and central scotoma with discoloration of the optic nerve. The appearances in an exquisite case of the latter affection resembled those which are frequently found in tobacco and alcoholic amblyopia, and less often in the diabetic form of the affection. The urine, however, was free from albumen and sugar; and abstinence from alcohol and tobacco produced no improvement, which is otherwise habitually considerable in these forms of intoxication when abstinence is enforced. The ophthalmoscope showed the disc to be white and turbid; in the erect image greenish, sharply limited, and the vessels normal. Five months afterwards, the scotoma

was rather more extensive. The patient had been treated with moderate doses of iodide of potassium.

JULIUS ALTHAUS, M.D.

374. *Abadie on Syphilis as a Cause of Locomotor Ataxy.*—Abadie (*Gaz. Hebdomadaire de Méd. et de Chir.*, 1882, No. 48) protests against the modern way of attributing every case of absent patellar reflex, temporary impotence, or spasm of the laryngeal muscles to commencing tabes. He thinks if we adopt Pierret's view that the sclerosis is apt to attack any part of the sensory system, central or peripheral, the terms 'locomotor ataxy' or 'tabes dorsalis' should not be employed. He thinks that Gombault's observation on the occurrence of a parenchymatous neuritis, which is capable of complete resolution, is of the utmost importance in explaining the transient paralyses of diphtheria, lead, &c. With reference to the relation of tabes to syphilis, he points out the following facts. All cases with a history of chancre are not syphilitic. Syphilitic histories are frequently present in cases of optic nerve atrophy apart from tabes. Are we, then, to conclude that atrophy of the optic nerves is syphilitic? Syphilis produces singularly diffuse lesions, and would not probably cause a well-defined systematic disease like tabes. Antisyphilitic treatment is absolutely useless in atrophy of the optic nerve. The ophthalmologist has the advantage of seeing these cases early, and of watching the evolution of the functional derangements and structural changes, and the influence of drugs upon these. He knows of no case of cure in medical literature. Mercury does harm, iodide of potassium no good. Syphilitic affections of the optic nerves are well known apart from tabes, characterised by diffuse infiltration on the surface of the nerve. But in tabes the change is one simply of progressive pallor of the disc. He is of opinion, therefore, that true locomotor ataxy, of which the essential symptoms are lightning-pains, incoordination of movements, atrophy of the optic nerves, and paralysis of the ocular muscles, should be retained in the large class of affections called *scleroses*, the etiology of which is still unknown.

375. *Vicente on Hemi-anæsthesia and Aphasia from Lead-poisoning.*—Dr. Vicente (*Le Progrès Méd.*, No. 49, 1882) reports the case of a neuropathic painter, aged 35, who had suffered all his life from nervous symptoms, including several epileptiform attacks, and who, after a night of violent delirium, followed by convulsions, presented loss of sensibility on the right side, with rigidity, aphasia, and, later on, bilateral deafness. In six days the hemi-anæsthesia and rigidity had disappeared, and on the following day speech and hearing suddenly returned. [This case is very similar to one published by the reporter as hysteria in the male, which was also complicated by the presence of the signs of lead-poisoning. See *Med. Times and Gazette*, Jan. 1, 1881.—*Rep.*]

376. *Riedel on Paralysis of Recurrent Laryngeal Nerves from the Use of Carbolic Acid in a Case of Extirpation of a Goitre.*—Dr. Riedel (*Centralblatt für die Med. Wiss.*, No. 34, 1882) relates a case of extirpation of a goitre, in which, after washing the wound with a 2 per cent. solution of carbolic acid, paralysis of both recurrent laryngeal nerves occurred, which was followed by pneumonia and death. The necropsy showed both nerves quite intact, so far as the surgical procedure was concerned.

377. *Spillmann and Schmitt on Tumours of the Fourth Ventricle.*—MM. Spillmann and Schmitt (*Archiv. Gén. de Méd.*) have collected thirty cases of tumour of the fourth ventricle. The most frequent symptoms were headache and vomiting; partial paralysis, hemiplegia, hemi-anæsthesia, staggering, disordered gait, choreic movements, depression, loss of memory, convulsions, followed by coma, deafness, squinting, amblyopia, &c., occurred more or less often. Sugar was observed in the urine four times, and diabetes insipidus once. In seventeen cases death was sudden. They conclude that, as most of the symptoms detailed above are common to most cerebral tumours, in the absence of sugar from the urine a diagnosis of tumour of the fourth ventricle is impossible.

378. *Lépine on Trismus of Cerebral Origin.*—M. Lépine (*Revue de Médecine*, No. 10, 1882) reports a case of a woman who died of cerebral apoplexy, and who presented as the sole convulsive phenomenon permanent trismus. At the necropsy, he found a small hæmorrhagic focus below the grey matter of the island of Reil, and at the foot of the ascending frontal convolution. It is at this place that excitation causes in the monkey constriction of the jaws. Such cases are rare because, according to M. Lépine, the act of mastication is very little cerebral; language, on the other hand, being distinctly so. This observation gives a real symptomatological value to trismus in the localisation of cerebral disease.

379. *Ott on the Diagnosis of Tubercular Meningitis.*—Dr. Lambert Ott (*Philad. Med. Times*) says that he has noticed extraordinary sensibility to pressure in the temur in two cases of tubercular meningitis. There was no hyperæsthesia elsewhere.

R. SAUNDY, M.D.

380. *Vierordt on Atrophic Paralysis of the Upper Extremity.*—Dr. O. Vierordt (*Deutsches Arch. für Klin. Med.*, Band xxxi., p. 485) had a series of cases under observation which enabled him to separate them into groups; e.g. three of traumatic paralysis, six of peripheral neuritis, six of progressive muscular atrophy, and one of chronic anterior poliomyelitis. Four points are, by the author, considered noteworthy among these: 1. the relation as to time between atrophy and paralysis; 2. the localisation thereof in the muscular system; 3. anomalies of sensibility; 4. the electrical condition. With reference to *traumatic paralysis*, the paresis of the motor nerves precedes the muscular atrophy. Disorders of sensibility always occur. Electrical excitability varies with the severity of injury. In *neuritis*, the paresis often distinctly precedes the atrophy; disturbance of sensation will in many cases be found to have been previously present, on sufficient exercise of the memory. The electrical conditions vary. In *progressive muscular atrophy*, there is a generally very slight typical disorder of the muscles of definite nerve-regions; it is well known that it commences in the small muscles of the hand. The parallelism between atrophy and debility is distinctly marked; sensibility is maintained; often there is complete, generally partial, indication of degeneration. In *chronic anterior poliomyelitis*, loss of power occurs first, and is followed by atrophy; disturbance of sensibility is wanting, as in progressive muscular atrophy; there is partial or complete evidence of degeneration.

W. B. KESTVEN, M.D.

381. *Oliver on Spasm of the Facial Nerve.*—Dr. Thomas Oliver, in the *Med. Times and Gazette*, Nov. 1882, p. 604, gives notes of a case of spasm of the facial nerve, or *tic convulsif*. A man, aged 49, suffered from attacks of epileptiform twitches on the left side of his face, affecting the muscles of the left angle of the mouth, the left half of the brow, the left ear, and left sterno-cleido-mastoid muscle. When the spasms were severe, there was also some difficulty of breathing, with cyanosis of the lips. In a few attacks the patient became unconscious, but not as a rule. After an attack, speech was often indistinct. When there was no spasm, the face as a whole was somewhat flaccid, yet there was paralysis of the muscles that were the seat of recurring spasm. The patient was given bromide of potassium in drachm doses three times a day, along with ten grains of iodide of potassium. The convulsive spasm was not confined to the muscles supplied by the facial nerve, nor did anaesthesia remain after the fit had passed off. The paralysis remaining is, in Dr. Oliver's estimation, the same as that spoken of by Dr. Hughlings Jackson as the sequel of epilepsy. This writer has drawn attention to the fact that after epilepsy the muscles are found in a paralytic condition, in which they remain until the nerve-centres recover from the exhaustion consequent upon the over-discharge of nerve-force; and Dr. Oliver considers that the paralysis of the muscles in his case was due to the same cause, sufficient time not being given between the attacks for the nerve-centres to recover.

382. *Barlow on Treatment of Infantile Paralysis.*—Dr. W. H. Barlow, in the *Brit. Med. Jour.*, Dec. 1882, p. 1248, writes, protesting against the continued use of the term 'infantile paralysis' to a disease not confined to infants, and suggests that the disease should be called 'regressive paralysis.' In referring to the great value of heat in the treatment of this disease, Dr. Barlow maintains that without resort to electricity one cannot combat fairly the disease; the only way to stimulate the muscles to act is by means first of the continuous current and, later on, the induced; and the earlier you commence the use of electricity the better, for after the lapse of two years it is of comparatively little effect. Next in value to electricity Dr. Barlow insists on the patient trying to move the limb himself, then to exercise passive movements and regulated gymnastic exercises.

RICHARD NEALE, M.D.

DERMATOLOGY.

RECENT PAPERS.

383. PONTOPPIDAN.—On the Etiology of Lupus. (*Viertel. für Derm. und Syph.*, Heft 2, 1882.)

384. PONTOPPIDAN.—Yaws and Framboesia. (*Ibid.*)

385. CASPARY.—On Molluscum Contagiosum. (*Ibid.*)

386. MANDELBAUM.—On a Case of Universal Telangiectasis of the Skin. (*Ibid.*)

387. ROHÉ.—Two Cases of Acute Psoriasis following Vaccination. (*Jour. of Cutaneous and Venereal Diseases*, Vol. i., No. 1.)

388. FOX, G. H.—Note on the Development of Trichophyton Cruris. (*Ibid.*)

389. TAYLOR, R. W.—Notes on Psoriasis. (*Ibid.*)

390. BULKLEY, L. D.—Acne Atrophica, or Lupoid Acne. (*Ibid.*)

391. ATKINSON.—Case of Tubercular Leprosy originating in Contagion. (*Jour. of Cutaneous and Venereal Diseases*, Vol. i., No. 2, p. 56.)

392. HYDE.—A Clinical Study of Dermatitis Papillaris Capillitii. (*Ibid.*)

393. BARTOSZEWICZ.—On the Treatment of Cutaneous Diseases by Scarifications. (*Ibid.*, p. 59; extracted from *Thèse de Paris*, 1882.)

394. GEIER.—On a Case of Epithelioma Molluscum and the Nature of the Tumour. (*Viertel. für Derm. und Syph.*, Heft 3, 1882.)

395. IRSAI and BABESIU.—On the Influence of the Nervous System on Pathological Changes in the Skin. (*Ibid.*)

396. LEWINSKI.—On Urticaria Pigmentosa. (*Virchow's Archiv.*, Vol. lxxviii., Heft 3, 1882.)

397. DE AMICIS.—A Rare Case of Zoster Bilateralis. (*Gior. Internat. delle Sci. Med.*, Naples, 1882.)

398. CROCKER.—Lichen Ruber vel Planus, affecting the Mucous Membranes. (*Monatsch. für prakt. Derm.*, No. 6, 1882.)

399. BOEGEHOLD.—On the Development of Malignant Tumours from Cicatrices. (*Virchow's Archiv.*, Vol. lxxviii., Heft 2, 1882.)

400. DOUTRELEFONT.—On the Distribution of Skin-Rashes. (*Sitzungsb. der Niederrh. Gesellsch. für Natur- und Heilkunde*, Feb. 13, 1882; abstract in *Viertel. für Derm. und Syph.*, Heft 3, 1882.)

401. UNNA.—On Medicated Spray. (*Berlin. Klin. Wochensh.*, Nos. 20 and 21, 1882.)

402. KOLLER.—On a Skin-Eruption caused by Parasites in Barley. (*Pester Med.-Chir. Presse*, No. 36, 1882; abstract in *Viertel. für Derm. und Syph.*, Heft 3, 1882.)

403. FEHLEISEN.—On the Cultivation of the Cocci of Erysipelas. (*Sitzungsb. der Würzb. Phys.-Med. Gesellsch.*, 1882; abstract in *Viertel. für Derm. und Syph.*, Heft 3, 1882.)

404. NEUMANN.—On a Case of Circumscribed Gangrenous Patches. (*Anz. d. r. Gesellsch. der Aerzte*, Vienna, May 12 and 25, 1882; also *Viertel. für Derm. und Syph.*, Heft 3, 1882.)

405. GREVE.—On the Treatment of Psoriasis by Large Doses of Iodide of Potassium. (*Tidskrift för prakt. Med.*, No. 16, 1881; abstract in *Viertel. für Derm. und Syph.*, Heft 3, 1882.)

406. PICK.—On the Treatment of Psoriasis. (*Allg. Med. Central-Zeit.*, No. 17, 1882; abstract in *Viertel. für Derm. und Syph.*, Heft 3, 1882.)

407. BOECK.—On the Diagnosis and Treatment of Lupus. (*Tidskrift för prakt. Med.*; abstract in *Viertel. für Derm. und Syph.*, Heft 3, 1882.)

408. QUINCKE.—On Acute Circumscribed Oedema of the Skin. (*Monatsch. für prakt. Derm.*, No. 5, 1882.)

409. GOLDSCHIEDER.—On Hereditary Disposition to the Formation of Bullae. (*Ibid.*, No. 6, 1882.)

410. RICHARDIERE.—On a Case of Polymorphous Erythema. (*Ann. de Derm. et de Syph.*, Vol. iii., No. 7.)

411. RABITSCH.—On the Treatment of Ringworm by Salicylic Acid. (*Wien. Med. Wochensh.*, No. 14, 1882.)

412. DE AMICIS.—On Fungoid Dermo-lympho-Adenoma. (Monograph; abstract in *Ann. de Derm. et de Syph.*, Vol. iii., No. 7.)

413. THOMPSON.—The Internal Administration of Chrysophanic Acid in Psoriasis. (*Lancet*, Dec. 1882, p. 1064.)

414. SMITH.—Treatment of an Extensive Outbreak of Ringworm. (*Brit. Med. Jour.*, Dec. 1882, p. 1195.)

415. KLINK, E.—On Naphthol in Skin-Disease. (*Pamietnik Towarzystwa Lekarsk. Warszawskiego*, Vol. lxxviii.)

416. WHITE.—The Contagion of Leprosy. (*Amer. Jour. of Med. Sciences*, Oct. 1882.)

ART. 383. Pontoppidan on the Etiology of Lupus. The author analysed (*Viertel. für Derm. und*

Syph., Heft 2, 1882) a hundred cases of lupus which were observed at the Communal Hospital of Copenhagen. He found that 34 per cent. of the patients were males and 66 per cent. females, a proportion which accords with that found by Dr. Raudnitz at Prague. An analysis of the proportion of cases which were furnished by the different districts of Denmark showed that lupus is most common in the parts in which the climate is raw cold and damp. While Raudnitz found at Prague that only 30 per cent. of his cases showed an association with scrofula, Dr. Pontoppidan found at Copenhagen that scrofulous manifestations were present in fifty-nine of his hundred patients. If swelling of the glands were alone to be taken as evidence of scrofula, this number would have to be increased by sixteen. The author found that this proportion is much in excess of that observed when patients of all kinds are indiscriminately examined for signs of scrofula.

384. *Pontoppidan on Yaws and Framboesia*.—Dr. Pontoppidan (*Wiertelj. für Derm. und Syph.*, Heft 2, 1882) examined cases of yaws, and investigated the nature of the disease in the islands of the Little Antilles and in St. Domingo. He found that the malady, which he believes to be an affection *sui generis*, is more superficial in its seat than the description by English and American writers has led us to believe. Microscopical examination showed that the crusts were formed by an amorphous accumulation of dried epidermis and pus-cells. Under them were found a layer of granulation-cells which resembled those found in lupus, gummata, or other granulation-tumours, but the papillary layer of the cutis was always present, and on the whole intact. The papillae were flattened, the rete Malpighii was compressed and permeated by round cells. The corium was normal. The author believes, therefore, that the seat of the disease is in the rete Malpighii. It is highly contagious.

385. *Caspary on Molluscum Contagiosum*.—Caspary (*Wiertelj. für Derm. und Syph.*, Heft 2, 1882) confirms the observations that have been recently made, more especially in London, on the nature of molluscum contagiosum, and finds that the tumours take their origin in the rete mucosum, and not in the sebaceous glands.

386. *Mandelbaum on a Case of Universal Telangiectasis of the Skin*.—Dr. Mandelbaum (*Wiertelj. für Derm. und Syph.*, Heft 2, 1882) reports the case of a healthy man, aged 38, whose skin was everywhere the seat of telangiectasis. The skin of the face was in every part filled with an extremely thick network of fine blood-vessels, and was marbled over, of a wine-red to a dark violet colour. The skin on the neck, trunk, upper and lower extremities, was spotted with small papules and red and violet maculae. They became pale under pressure, although some of them remained of a yellowish brown. The spots and papules had all appeared spontaneously during the preceding nine years, and gave rise to no symptom or feeling of discomfort. They never disappeared and never became paler, although they sometimes were darker. A small piece of skin was examined, and the diagnosis of telangiectasis confirmed. The author only knows of one similar case, which was reported by Kaposi in his *Lectures on Diseases of the Skin*, p. 597.

387. *Rohé on Acute General Psoriasis following Vaccination*.—Dr. Rohé (*Ann. of Cutaneous and Venereal Diseases*, Vol. i., No. 1) relates two cases in which psoriasis appeared for the first time after

vaccination with bovine virus. One of the patients was a man aged 28, and the other a boy aged 9.

390. *Bulkeley on Acne Atrophica or Lupoid Acne*. Dr. Bulkeley (*Ann. of Cutaneous and Venereal Diseases*, Vol. i., No. 1) relates three typical cases of the affection known as acne atrophica, or lupoid acne. The characteristic lesions are the depressed, sharply cut cicatrices which the pustules leave on the forehead and temples, and the disease is essentially chronic. It is not syphilitic (as has been supposed by some authors), nor is it lupus. [The disease is occasionally described as *acne varioliformis*, an excellent name, had it not been already applied by Bazin to molluscum contagiosum.—*Rep.*]

391. *Atkinson on a Case of Tubercular Leprosy originating in Contagion*.—Dr. Atkinson reported at the fifth annual meeting of the American Dermatological Association (*Ann. of Cutaneous and Venereal Diseases*, Vol. i., No. 2) the case of a woman, of German parentage, who, having never been outside the limits of the State of Maryland, became the object of tubercular leprosy whilst resident in Baltimore. The author attributes the woman's illness to the fact that she had become acquainted with a leper named Brown. This man lived in the same street with her for two years, during half of which period he was her next-door neighbour. Brown's case is reported in the *Maryland Med. Jour.* for July 1878 by Dr. Rohé. He subsequently died in the Charity Hospital, New York.

393. *Bartesczewicz on the Treatment of Cutaneous Diseases by Scarification*.—The author (*Thèse de Paris*, 1882; *Jour. of Cutaneous and Venereal Diseases*, Vol. i., No. 2) remarks that, in the treatment of many skin-diseases, scarification must be regarded as more prompt and satisfactory in its results than any other remedial measures. White, thin, and smooth cicatrices are the advantages offered by this mode of treatment, and in no instances are they so conspicuous as in severe cases of lupus.

394. *Geber on a Case of Epithelioma Molluscum and the Nature of the Tumour*.—Geber (*Wiertelj. für Derm. und Syph.*, Heft 3, 1882) has examined with great minuteness the small tumours known by English authors as molluscum contagiosum (*Epithelioma Molluscum*, Virchow), and has come to the conclusion that the morbid change essentially consists in a hyaline degeneration of the cells of the interpapillary cones of the rete Malpighii. There is, in the first instance, a hyperplasia of the epithelial cells. Geber does not believe that the disease is contagious, but considers that there is in certain persons a predisposition to the formation of these tumours, and that in a number of cases local irritation is an exciting cause.

395. *Israel and Eubasia on the Influence of the Nervous System on Pathological Changes in the Skin*.—The authors (*Wiertelj. für Derm. und Syph.*, Heft 3, 1882) endeavoured by experiments on dogs to ascertain whether morbid conditions of the nervous system are direct causes of skin eruptions. The conclusions at which they arrived are as follows. 1. Immediately after injury to one side of the spinal cord by wound or injection of an irritating fluid, paralysis, but no skin-affection, was observed. 2. After several days, when inflammation had occurred, there appeared an eruption of herpes on the same side on which the injury had been inflicted. When the inflammation involved the opposite side, the herpes was bilateral. 3. The herpes disappeared after it had lasted from three to five days. 4. As

the eruption disappeared, atrophy of the skin was observed on the part which had been the seat of the eruption, and the atrophy went on increasing. Lesions of the spinal ganglia and their nerves were not followed by changes in the skin.

400. *Doutrelepoint on the Distribution of Skin-Rashes.*—Doutrelepoint (*Sitzungsber. der Niederöhr. Gesellsch. für Natur- und Heilkunde*, Feb. 13, 1882; abstract in *Viertelj. für Derm. und Syph.*, Heft 3, 1882) relates a case in which, in a child four years old, callosities had developed symmetrically on certain points in the hands and feet. The growth had begun when the child was in her second year. The author believes that the fact that both hands and feet were affected, shows that there was a disturbance of nutrition dependent on a central cause.

401. *Unna on Medicated Spray.* Unna (*Berlin Klin. Wochensh.*, Nos. 20 and 21, 1882) recommends ether and alcohol spray as a medium for the application of remedies to parts which are otherwise difficult to reach, as, *eg.*, the external ear, the nostrils, and mucous membranes. He has used in this way chrysophanic acid, chloral hydrate, iodoform, iodides of mercury and potassium, bichloride of mercury, collodion, arsenic, and nitrate of silver. Nearly saturated solutions were used.

402. *Köller on a Skin-Eruption caused by Parasites in Barley.*—Twenty-six labourers (*Pester Med.-Chir. Presse*, No. 36, 1882; abstract in *Viertelj. für Derm. und Syph.*, Heft 3, 1882), half an hour after they had carried sacks of barley, were seized with violent itching on the upper part of the body. On the neck, back, and legs a skin-eruption developed, which resembled a mixture of urticaria, lichen urticatus, and artificial eczema. The itching was increased by cold baths, which several of the men took, but was immediately removed by washing with a 1 per cent. solution of carbolic acid and tepid baths. In the dust which was riddled from the barley the remains of acari were found; in the barley itself the same form of acarus was observed, which Robin has described as a species of *Oribates*.

403. *Fehleisen on the Cultivation of the Cocci of Erysipelas.*—The author (*Sitzungsber. der Würzb. Phys.-Med. Gesellsch.*, 1882; abstract in *Viertelj. für Derm. und Syph.*, Heft 3, 1882) had previously described the existence of micrococci in the lymphatic vessels as a constant occurrence in erysipelas. In order to ascertain whether the micrococci are the real cause of the disease he cultivated them in Koch's 'flesh-infusion pepton-gelatine.' The fourth generation of this cultivation series was inoculated over a conglomerated mass of fibro-sarcomatous tumours which had formed on the left gluteal region of a woman aged 58, and which hung down so low that they impeded her movements in standing and walking. The inoculation was made at 3 P.M., and on the following morning at 10 there was a slight rigor. The patient complained the whole of that day of headache and had less than her usual appetite. In the evening her temperature was 38° 8' C. (102° Fahr.). On the third day the morning temperature was 37° 2' C. (99° Fahr.), the evening temperature 37° 8' C. (100° Fahr.), and the patient felt well. During the night she at first slept well, but at 4 A.M. there was a rigor, and on the morning of the fourth day there was observed a sharply limited, slightly raised reddened surface—a typical erysipelas marginatum—the temperature being 40° 5' C. (105° Fahr.). The local and general symptoms increased until the seventh day, the tem-

perature reaching its highest point, 41° 0' C. nearly 107° Fahr.). From that day the disease steadily diminished in intensity, the affected area became gradually paler, and on the fifteenth day the temperature was normal. The author further reports that he has succeeded in inoculating rabbits with the disease.

404. *Neumann on a Case of Circumscribed Gangrenous Patches.*—Neumann (*Anzeig. der Gesellsch. der Aerzte*, Vienna, May 12 and May 25, 1882; also *Viertelj. für Derm. und Syph.*, Heft 3, 1882) brought before the Vienna Medical Society a case which is supposed to be of great rarity, if not unique. The patient was a young woman, eighteen years old, anemic; the menses were scanty; and she had been since October 15, when the first lesions developed on the palm, the subject of acute circumscribed gangrene on various parts of the body. The first symptom was a sensation of severe burning, which lasted from five to ten minutes; the skin became reddened on a circumscribed spot, slightly raised, and the temperature increased. The part then became brown, and afterwards of a dull white colour. Sensation was lost in the periphery first, and after about half an hour in the centre. Neumann himself observed these stages on four occasions. The slough separated within fourteen days, the granulating surface which was left being healthy. In the discussion which followed, Billroth and Wenlechner expressed the opinion that the sloughs were artificially produced, but Ludwig (who undertook a chemical examination of the sloughed skin) could find in it neither caustic alkalis, nor alkaline carbonates, nor caustic mineral acids.

405. *Greve on the Treatment of Psoriasis by Large Doses of Iodide of Potassium.* Greve (*Festschrift für prakt. Med.*, No. 10, 1881; abstract in *Viertelj. für Derm. und Syph.*, Heft 3, 1882) states that iodide of potassium in large doses is a certain cure for psoriasis. He begins with small doses, increasing them gradually until tolerance is established. When a dose of 15 grains has been reached the curative effects begin to be observable, but when a dose of 30 to 45 grains has been reached, the disease begins quickly to disappear. This statement of Greve is confirmed by Boeck.

406. *Pick on the Treatment of Psoriasis.*—Pick (*Allg. Med. Central-Zeit.*, No. 17, 1882; abstract in *Viertelj. für Derm. und Syph.*, Heft 3, 1882) in order to secure the good effects of the treatment of psoriasis by chrysarobin without its well-known disadvantages, has used a chrysarobin-gelatine. The combination was used in various percentages to meet the peculiarities of individual cases, and is recommended by the author.

407. *Boeck on the Diagnosis and Treatment of Lupus Vulgaris.*—Boeck (*Festschrift für prakt. Med.*, Nos. 10, 20, and 21; abstract in *Viertelj. für Derm. und Syph.*, Heft 3, 1882) recommends a pyrogallic plaster for the treatment of lupus. His formula is:—*Olei olivæ, resina colophonia*, aa 8 grammes; *cera flavæ*, 15 grammes; *gummi resina ammoniaci, balsami terebinthina veneta*, aa 1 gramme; *acidi pyrogallici*, 4 grammes. Fiat emplastrum.

408. *Quincke on Acute Circumscribed Edema of the Skin.*—Quincke (*Monatsch. für prakt. Derm.*, No. 5, 1882) has observed cases in which circumscribed edema has developed suddenly in the neighbourhood of joints, occasionally on the trunk and face, and on the latter part more especially on

the lips and eyelids. The swollen parts are not sharply limited, and are usually of the same colour as the surrounding skin. There is generally a sensation of tension, but not of itching. Simultaneously parts of the mucous membrane of the lips, soft palate, pharynx, and entrance to the larynx, may swell, and difficulty of breathing may ensue. The swelling lasts from several hours to a day; but, while the first swellings disappear, others sometimes develop on various parts of the body, so that the affection may continue for several days and even weeks. It is not accompanied by fever. In some cases, the œdema of the larynx rendered scarification necessary.

409. *Goldscheider on Hereditary Disposition to the Formation of Bullæ.*—The author (*Monatssch. für prakt. Derm.*, No. 6, 1882) relates that, in a family of which he knows several members, there has been a predisposition to the formation of bullæ in three generations. Moderately firm rubbing with the finger on any part of the body for two or three minutes produced a bulla after a few hours. Mere pressure was not sufficient to produce the effect, nor was a merely chemical irritant, such as tincture of iodine or acetic acid. Microscopical examination showed that the predisposition consisted in an hereditary defect in the prickle-cell layer, which led to its being easily detached from the subjacent epidermic cells.

410. *Richardière on a Case of Polymorphous Erythema.*—The author (*Ann. de Derm. et de Syph.*, Vol. iii., No. 7) describes a case of polymorphous erythema, in which a painful condition of the joints yielded to salicylate of soda. Endocarditis occurred on the fifth or sixth day of the eruption, and persisted after it had disappeared.

411. *Rabitsch on the Treatment of Ring-worm by Salicylic Acid.*—Rabitsch (*Wien. Med. Wochens.*, No. 14, 1882) has used with success in eczema marginatum, tinea circinata, and pityriasis versicolor, a 10 per cent. solution of salicylic acid in alcohol.

412. *De Amicis on Fungoid Dermo-lympho-adenoma (Mycosis Fungoidæ of Alibert, Inflammatory Fungoid Neoplasm of Dühring).*—De Amicis (*Monograph*, abstracted in *Ann. de Derm. et de Syph.*, Vol. iii., No. 7) reports two cases of the affection termed mycosis fungoidæ by French authors, one of them being fatal. The histological examination of the tumours confirms Dr. Dühring's suggestion that this affection is similar in its nature to the cases described by him under the name of inflammatory fungoid neoplasm. The chief interest of the communication lies in the description of the histological changes. The epidermis appeared almost healthy, but the normal elements of the corium had disappeared, their place being taken by small lymphoid elements closely packed in the meshes of a very delicate reticulum. The tumours were very vascular. The infiltration surrounded the hair-follicles and the sebaceous and sudiparous glands. The panniculus adiposus contained numerous leucocytes and many newly formed vessels. The changes extended to the subcutaneous tissues and penetrated to the muscles, in which the lymphoid corpuscles were observed separating and breaking up the individual fibres.

G. THIN, M.D.

413. *Thompson on the Internal Administration of Chrysophanic Acid in Psoriasis.*—Dr. Ashburnton Thompson, in a letter in the *Lancet*, Dec. 1882, p. 1064, refers to Mr. Cauty's remarks on chryso-

phanic acid in the *Lancet*, Dec. 2, and draws attention to a paper by himself in the *Brit. Med. Jour.*, May 1877, in which he claims having first observed the marked effect which chrysophanic acid has of discharging large quantities of bile from the body, and in large doses (ten to fifteen grains) of acting as a valuable emetic purge.

414. *Smith on Treatment of an Extensive Outbreak of Ringworm.*—Mr. Alder Smith, in the *Brit. Med. Jour.*, Dec. 1882, p. 1195, gives a summary of the management of a large outbreak of ringworm in a school. Out of ninety-two children there were eighty-three affected with ringworm; some cases very chronic, some very recent. The majority had body ringworm as well. In less than a month the body ringworm was cured by using, either Coster's paste, acetic acid, or by the compound ointment of carbolic acid, citrine ointment, and sulphur. In less than three months forty-nine cases were cured by using only the compound carbolic acid, citrine and sulphur ointment. Of the remaining cases, twenty were put on the oleate of mercury treatment, and later on twenty-three cases were treated with croton-oil, in order to remove stumps or to convert small rebellious patches into kerion. In six months, seventy-two cases were cured.

RICHARD NEALE, M.D.

415. *Klink on Naphthol in Skin-Disease.*—Dr. E. Klink, of Warsaw (*Pamiętnik Towarz. Lek. Warsz.*, Vol. lxxviii.), employed beta-naphthol (see the LONDON MEDICAL RECORD, Oct. 1881, p. 413) in ointment made of 1 to 15 grammes to 100 grammes of lard, and in alcoholic solution (from $\frac{1}{2}$ to 10 grammes to 100 grammes of diluted spirit), and, after an extensive trial in various skin affections, came to the conclusion that this remedy is reliable only in cases of parasitic diseases, such as scabies, ringworm, and pityriasis versicolor. In eczema, the author prefers resinous substances; in psoriasis, chrysophanic and pyrogallic acids. In view of the strong irritating effects of naphthol on the skin and kidneys, caution is recommended.—[The danger of hæmoglobinuria from the use of naphthol had been already pointed out by Dr. Neisser. See the LONDON MEDICAL RECORD, Feb. 1882, p. 69.—*Rep.*]

V. IDELSON, M.D.

416. *White on the Contagion of Leprosy.*—In the *Amer. Jour. of the Med. Sciences* for Oct. 1882, Dr. James C. White contributes a valuable paper in which he traces the origin of leprosy in the Hawaiian Islands, New Brunswick, Cape Breton, and the United States. In the study of the disease observed in these various localities, he finds evidence that it is communicable from man to man by direct transference, or facts which can be interpreted in no other reasonable way; and this conclusion he accepts as supported by the general history of the affection in past times as related by medical chroniclers. He accordingly feels justified in forming the following conclusions. Leprosy has spread under recent observation, when introduced into a previously unaffected stock, in so rapid and general a way as to prove that it may diffuse itself universally through a nation independently of the action of hereditary tendencies. There is no evidence to support the assumption that this wide and quick extension of the disease has been caused or aided by any peculiarities of soil, climate, diet, or other telluric agency in Hawaii. The history of the affection, on the other hand, leads to the strongest conviction (scientific proof is well-nigh out of the question) that it is communicated directly from person to person, while the peculiar customs offer a satisfactory explanation of

its unparalleled spread. The history of the little centre of disease in Louisiana, watched, fortunately, from its very beginning, leads to the same conclusion, that it affects persons not under any law of heredity, but through the intimacy of personal relationship, the customs and morals determining largely the rapidity and universality of its spread. As regards the bacilli of leprosy, Dr. White believes that there is nothing in the history or pathology of leprosy incompatible with the theory of its parasitic nature. Should a bacterium be constantly found in the disease, it would constitute strong presumptive evidence that this parasite was the specific cause of leprosy. The proof would be positive if its inoculation were found to reproduce the disease. As yet, however, proof of this character has been merely negative. Dr. White is a strong advocate of the isolation of lepers.

DISEASES OF CHILDREN.

RECENT PAPERS.

417. SOUTHEY.—Symmetrical Gangrene of the Skin of the Abdomen in a Child. (*Brit. Med. Jour.*, Dec. 1882, p. 1094.)

418. POCKOCK.—Acute Rheumatism in an Infant. (*Lancet*, Nov. 1882, p. 804.)

419. STEELE.—Bent Tibiæ in Children. (*Brit. Med. Jour.*, Dec. 1882, p. 1293.)

420. BECK.—Strangulated Hernia in an Infant. (*Brit. Med. Jour.*, Dec. 1882, p. 1151.)

421. GODLEE.—Three Cases of Intussusception in Infants treated by Abdominal Section. (*Brit. Med. Jour.*, Dec. 1882, p. 1210.)

422. KISPERT.—Suprapubic Lithotomy in Children. (*El Genio Medico-Quirurgico*.)

ART. 417. *Southey on Symmetrical Gangrene of the Skin of the Abdomen in a Child*.—Dr. Southey (*Brit. Med. Jour.*, Dec. 1882, p. 1094) reports a case which occurred in St. Bartholomew's Hospital. A child, aged five, was admitted on the twenty-first day of illness (scarlet fever), and on the abdomen was noticed a large dark purple triangular patch, graduating off in bruise-like rings of colour at its margin, suffusing the skin of the abdomen. It left the umbilicus free, but was very symmetrical on both sides of the mesial line, extending from the costal arch to a little below the navel, the apex pointing to the pubes. A second ecchymotic patch of smaller size extended a little below the larger one. Three days after admission, the skin of these patches became gangrenous; on the eighth day they commenced to slough, and healed about eight weeks from the first appearance of the gangrene, leaving a dull red scar without any contraction.

418. *Pockock on Acute Rheumatism in an Infant*.—Dr. Ernest Pockock, in the *Lancet*, Nov. 1882, p. 804, reports a case of acute rheumatism in a newly-born infant. Mrs. A.—had been ill two days with rheumatic fever, and was pregnant, being within a month of her confinement. Twenty grains of salicylate of soda were given every hour at first, then every two hours, and in thirty hours the rheumatic pains left entirely, but labour came on, and in four hours a healthy male child was born; the mother had a return of the rheumatism after its birth, but eventually recovered. The child was decidedly feverish within twelve hours of birth, and cried a good deal, especially when the right arm was moved.

The temperature was found to be 103.5, and the pulse very rapid. Salicylate of soda (in doses of four grains every two hours) was given to the infant. The temperature fell to 101° within forty hours, and was normal by the eighth day, after which it did not rise again. The child made a good recovery, and no valvular mischief was detected.—[A reference to Section 1453:6 of the *Medical Digest* will, among other interesting cases of infantile rheumatism, direct the reader to a very valuable paper by Dr. Giuntoli, published in the LONDON MEDICAL RECORD, June 1879, p. 213.—*Ref.*]

419. *Steele on Bent Tibiæ in Children*.—Dr. C. Steele, in the *Brit. Med. Jour.*, Dec. 1882, p. 1293, in a short paper, speaks of those cases of bent tibiæ in children where the inner surface presents a curve outwards and backwards, and in so doing gives a twist to the ankle, turning the toes inwards. Dr. Steele remarks that this condition is generally observed in fine children soon after they begin to walk, and he holds that the deformity is congenital, due to the position which the child's legs and feet occupy *in utero*, especially if the child be a large one and the liquor amnii small in quantity. The treatment recommended is the early use of an elastic power acting on the bone affected, leaving free the knee and ankle joints by means of a light instrument which can be worn both day and night.

420. *Beck on Strangulated Hernia in an Infant*.—Mr. Marcus Beck, in the *Brit. Med. Jour.*, Dec. 1882, p. 1151, reports a case of strangulated hernia in which he operated, and the child was discharged cured in fifteen days. Cases of strangulated hernia in children are extremely rare, and all the recorded cases have been in boys. Out of nine cases operated on and reported, death occurred in two only. According to Mr. Erichsen, the sac of a strangulated congenital hernia commonly contains a large quantity of fluid, usually clear but often dark in colour; there being in fact a hydrocele conjoined with the hernia. The stricture appears to be formed by the contraction of the funicular prolongation of the peritoneum, and is always found in the neck of the sac; hence it is useless in these cases to endeavour to relieve the strangulation without laying open the sac and dividing its neck from within.

421. *Godlee on Three Cases of Intussusception in Infants Treated by Abdominal Section*.—Mr. Godlee, in the *Brit. Med. Jour.*, Dec. 1882, p. 1210, gives notes on three cases of intussusception in infants. The first case was that of a child, aged nineteen months. The bowel protruded at the anus, and it was thought inadvisable to try inflation for any length of time; abdominal section was therefore resorted to, the intussusception reduced, and the wound dressed with iodoform wool; the patient recovered completely by the eleventh day. The other two cases were more severe, and both the patients died. Mr. Godlee adds that, whenever the gut protrudes at the anus, he would not hesitate to operate at once; but, when a tumour is felt through the abdominal wall, inflation and injection should be tried.

Mr. George Brown, in the same paper, gives an account of a case of acute intussusception in a boy, two years of age, in which he performed abdominal section, but all attempts to reduce the incarcerated gut failed, and it was decided to make a longitudinal incision in the descending colon to relieve the distension. It was then found that the inflammatory action had been so severe as to cause firm adhesion of the serous membrane of the colon, and that of the

invaginated small intestine. The child died six hours after the operation.

RICHARD NEALE, M.D.

422. *Kispert on Suprapubic Lithotomy in Children*.—Dr. Kispert (*El Genio Medico-Quirurgico*) reports two cases of suprapubic lithotomy in children, both recovering without a bad symptom. The incisions were made in the linea alba vertically, and the bladder sewed up with carbolised silk, the whole operation being performed antiseptically. Dr. Kispert holds that in children the high operation is by far the best, as giving more room, as leading to quicker recovery, and avoiding any chance of causing sterility. He prefers it also in many adult cases, as when there exist hæmorrhoids, prostatic enlargement, morbus coxæ, &c. In quite young children the relatively higher position of the bladder in the abdomen might be an additional reason for this operation—one hardly, if ever, performed in England on children.

WALTER PYE.

REVIEWS.

ARTICLE 423.

The Chamberlens and the Midwifery Forceps. By J. H. AVELING, M.D., Physician to the Chelsea Hospital for Women. London: J & A. Churchill. 1882.

THIS work represents ten years' study, compilation, and sifting of a scattered mass of biographical materials of five generations of the Chamberlen family. To give some idea of the wide range of territory traversed, we enumerate a few of the sources from which the author has drawn the materials of what we regard as one of the most ingenious and laborious examples of synthetical labour and inductive logic, with which we are acquainted in the whole range of medical literature. He has consulted the registers, by permission from the Lord Bishop of London, of the See, and the Vicar-General; he has searched through the annals of the College of Physicians, as well as the annals of the Barber-Surgeons now in possession of the Barbers' Company. The result of Dr. Aveling's researches is that the whole history of the midwifery forceps, its real inventor, and almost the exact date of its invention, now stand out as clear as daylight.

In alluding to the discovery of forceps in Dr. Peter Chamberlen's house, Dr. Aveling remarks:—'One curious fact can scarcely have escaped the attention of the reader, which is, that there are three specimens of each class. It is true there are four forceps, but one is of such rude construction as to be scarcely practically useful. The rational and inevitable explanation, therefore, of this remarkable coincidence must be, that the instruments found were those not only of Dr. Peter Chamberlen, but of his father and uncle; for the secret could scarcely have been kept, if at the death of the latter two obstetricians their instruments had been allowed to fall into any other hands than those of Dr. Peter Chamberlen.'

He then notes that Semellie, in the introduction to his *Midwifery*, speaking of the instrument used by Chamberlen, says—'and said to be contrived by the "uncle." "The uncle" can mean no other person than Peter Chamberlen, senior, for Dr. Peter Chamberlen had no brother practising as an obstetrician. As far, therefore, as can be determined by existing evidence, Peter Chamberlen, senior, may

with almost absolute certainty have the honour conferred upon him of being the inventor of midwifery forceps. He was born, as has been already shown, in Paris, whence, when a youth, he fled with his father to this country. Here, as was the case with many of his brother Huguenot refugees, he rewarded our country for its shelter by bestowing upon us the priceless and beneficent bounty of his skill and genius.' In conclusion, we may state that the author of this interesting historical monograph merits the appreciation and approval of all who practise in the department of obstetric medicine. The book is unusually well got up, the binding is pleasing to the eye of the bibliophile, and the paper and type will compare favourably with those of many an 'édition de luxe.'

FANCOURT BARNES, M.D.

ARTICLE 424.

Practical Medical Anatomy. By AMBROSE L. RANNEY, A.M., M.D. London: Sampson Low, Marston, Searle, & Rivington. 1882.

THIS volume is composed of anatomy and surgical anatomy, with hints from Hilton and Holden, a little medical anatomy from Sibson, and a short account of physical signs used in medical examinations, such as would hardly suffice for any manual for clinical use. There are numerous woodcuts, generally very hideous, seldom original, and sometimes not referred to in the text (Nos. 48, 49, 50, 66, 67, 79, 88, 112, 113, 132, 133, 134, &c.), but put in apparently out of sheer prodigality, such as we see in some of the American illustrated magazines; in the present case there is not the excuse of artistic merit which makes the others welcome. The author views all adaptations from a teleological standpoint. Some of his remarks are very curious: 'The physiological acts of prehension of food and its mastication, the sucking of liquids through a tube . . . are all materially assisted by movements of the head,' as if Nature in her bounty foresaw and provided for the American's natural weakness for sherry-cobblers.

The author believes in physiognomical diagnosis, and quotes numerous authorities in his support. The chapter on this subject contains some of the most hideous of the illustrations. This is just one of those questions which is dear to the unscientific mind, for we hold it truth that science means precise knowledge, and all that is vague and undefined, that has not stood the test of careful investigation, or which is too indefinite to admit of it, is mere futility and idle talk. We do not object to careful investigations into this or any other subject, because properly conducted investigations must increase our precise knowledge, though possibly only in a negative direction, as those of Galton and Mahomed on the physiognomy of phthisis have done. Our protest is against the assumption that we already possess trustworthy information as to the pathological indications afforded by facial expressions.

The author speaks of pericarditis of the pericardium as an operation not much in favour and grave in character. No doubt it is not a frequent operation, but that is more probably because the indications for it are not common. Rosenstein's case of successful incision for pyo-pericardium is a great encouragement to operative treatment, even in the most unfavourable circumstances.

Dr. Ranney's book contains a great deal of information in a compact form, and will doubtless prove

useful to those who want a ready guide to the practical points of anatomy.

ARTICLE 425.

The Systematic Treatment of Nerve-Prostration and Hysteria. By W. S. PLAYFAIR, M.D., F.R.C.P. London: Smith, Elder, & Co. 1883.

DR. PLAYFAIR has done good service by collecting into a small book his articles in the *Lancet* of 1881, and his paper read at the meeting of the British Medical Association at Worcester in 1882 (supplemented by a few notes and appendices), on the systematic treatment of nerve-prostration and hysteria by isolation, 'massage,' and abundant diet. His attempts he gratefully acknowledges to have been due to Dr. S. Weir Mitchell's remarkable success in the United States. In 1875 Dr. Mitchell began treating some selected cases of 'neurasthenia' and hysteria by separating them entirely from their friends, by shampooing them, or 'massage,' which substituted passive exercise for exertion, and by electrical muscular excitation, which acted in a somewhat similar manner. 'These means,' he says, 'enable us to overfeed our patients, and enable them to digest with ease large amounts of food.'

To Dr. Weir Mitchell's long series of successes Dr. Playfair adds a few very striking ones from his own practice, where, under such treatment, the dreary picture of the *vic manqué*, the chronic hysterical invalid, helpless, hopeless, a martyr to all discomforts, a burden to all near her, has given place to health and strength little expected and permanent beyond relapse. Considering the comparative novelty of the method in English clinical practice, it was Dr. Playfair's function to be explanatory and exhortatory rather than critical. He gives a short sketch of his cases, and inserts in one of them a complete dietary as used on the tenth day of the treatment of a patient over 50, weighing 44 stone, who had lain for twenty years on a bed or sofa, subsisted on starvation diet, and been in constant pain, too weak to stand. It looks at first sight like the dietary of a vigorous diabetic patient, who had been allowed her own way as to solid food—porridge, egg, rump steak, roast mutton, fried sole, omelette, potatoes, cauliflower, French beans, bread and butter—and agreed to put up with about five pints of milk and raw meat soup. However, as there was no dyspepsia, she not unnaturally gained weight—in fact more than three stone in six weeks, and was soon well enough to set out for Natal.

The points which he considers most essential, and very justly so, are—(1) that the case should be well chosen; (2) that the nurse who is the invalid's sole attendant and companion should be competent to the very difficult duties of management and 'massage,' of which latter he gives a detailed account in an appendix; (3) that the patient should be completely isolated, as a break to the continuity of bad habits and a check to prejudicial and misplaced sympathy; and (4) that a gradually increasing high scale of diet should be used unsparingly. That all of these should be satisfactorily carried out, is manifestly not easy: the power of discrimination of cases which are amenable to such treatment is only to be acquired by experience and perhaps failure. That there have been failures, Dr. Playfair hints; it would have been very helpful to the inexperienced to hear the history of some of them. It needs many pages and a brilliant pen to

give a complete picture of a state of nervous exhaustion and hysteria, its antecedents, and the indications leading to this treatment or to that; and though Dr. Playfair's style is very clear, his space is limited, and he has not found it possible, as a rule, to describe the previous treatment of his patients. The treatment raises the nurse almost to the position of first importance. Her competence is only to be judged of from her success; and if she be unsuccessful she must be replaced, it is insisted, until the successful nurse can be found. The nurses fit for such a task at present are few; but if the treatment grow more popular they will grow more numerous up to a certain point; they will always require considerable natural talent. That the treatment will grow more popular is probable; for it is an attempt at a curative treatment for states which have not, as a rule, had any treatment hitherto that was better than palliative, and much that was worse. Still there is no point in it that is entirely novel; it is rather as an organised system that it is new. But experience in it will grow slowly, for it is not a method that can be tested in hospitals; and the private practitioner's first plunge into it requires nerve. That the first successes should make Dr. Playfair's book rather too sanguine, is perhaps only natural. 'It is a plan,' writes Dr. Weir Mitchell, more cautiously, after seven years' abundant experience, 'never to be used where exercise, out-door life, tonics, and change have not been thoroughly tested.'

A. T. MYERS, M.D.

ARTICLE 426.

Notes from Sick Rooms. By MRS. LESLIE STEPHEN. London: Smith, Elder, & Co.

IN this unpretending little book, Mrs. Leslie Stephen desires, for the benefit of others, to record some of the experience she has gained in connection with the sick room in the double capacity of patient and nurse. She has evidently had considerable opportunities in private life of recognising some of the weak points of nurses, even amongst such as have been professionally trained for the work, and has carefully noted how best to avoid them. It is no disparagement of Mrs. Stephen's task to surmise that she has not undergone the systematic hospital training, by most people thought essential, prior to speaking authoritatively on the subject of nursing; because the impressions and suggestions which an intelligent witness, who has watched with discernment the shortcomings of others, has to offer, have oftener than not a freshness about them which goes far to make up for the want of that scientific knowledge with which it is becoming the fashion to imbue the modern nurse. It is mainly with the multitude of small things that the writer has to deal, such as constitute the every-day life of the sick chamber, and which, from their simplicity and ordinary routine, are equally applicable to the members of the family circle and to the nurse hired for the occasion. Among other useful observations our attention is directed to the misery often caused to patients from crumbs in the bedclothes—gravel-walks, as they are sometimes called; to the proper means of assorting pillows, bed clothes, and waterproofs; and to the necessity of furnishing an abundance of clean linen and handkerchiefs without disturbing the patient with visions of the washerwoman. The notes on ablution and bathing are much to the purpose, the writer evincing almost a too sensitive fear lest the patient should

suffer from chill, an unpardonable offence on the part of the nurse should it occur, but one which a person of ordinary judgment would know how to avoid. The same may be said of the measures recommended for airing the apartment, moderating the light either by night or by day, and deodorising the atmosphere, which may occasionally be necessary where the night-stool or bed-pan is used. The spray of Sanitas is recommended for the latter purpose, although we think most people would prefer the odour of eucalyptus, thymol, or even carbolic acid; but on this, as well as in most matters which concern individual comfort, some concession must be made to the nasal susceptibilities of the patient. Mrs. Stephen inveighs against candle-smoke, the use of night-lights, and other minor abominations which are liable to make the sick room oppressive, and recommends suitable means by which the irksome character of what are supposed to be necessary adjuncts of the sick chamber may be avoided. Some judicious remarks are appended in disparagement of the industrious busybodies who are for ever insisting on visiting patients at unseasonable times, and on the necessity of the nurse enforcing order and quiet—which may be practicable enough anywhere indoors, but scarcely possible to the dwellers in the busy streets of large towns. There are few things more distracting to patients in London houses than the brawling noises, drum and life bands, barrel organs, and other disturbing torments which infest the streets after night-fall.

The concluding part of the notes refers more exclusively to matters which come specially within the province of the nurse, comprising some remarks on cooking (especially beef-tea), the administration of food, the preparation and application of fomentations, poultices, and other medicaments. Little is said about the nursing of special diseases; although the moral management of hysteria—or rather of what are termed nervous patients—is considered at some length, the nurse being warned never to look at or speak to a person suffering from an acute attack of hysteria, but to maintain a calm demeanour in the emergency, avoiding all gaieties and reproach. In a few concluding and well-timed remarks, the writer counsels the nurse, when death supervenes, to avoid all fussiness and assumption of knowledge relative to the disposal of the corpse, and to leave the melancholy duty, if possible, to be performed by friends or relatives.

Although exception may be taken, and not unreasonably, by many competent nurses to some passages in the notes, they may on the whole be read with advantage and profit by nurses in general, and especially by the female members of any household, containing, as they do, many useful hints and suggestions, valuable in a time of sickness.

J. C. STEELE, M.D.

NOTES ON BOOKS.

ARTICLE 427.

Nerve Vibration and Excitation as Agents in the Treatment of Functional Disorder and Organic Disease. By J. MORTIMER GRANVILLE, M.D. London, 1883. Pp. 128.—Dr. Granville's book consists to a great extent of reprints of papers which have at various times appeared from his pen in the medical journals on his mode of percussion as a cure for nervous diseases, including a claim for priority against M. Boudet, of Paris, who has ap-

parently used similar means in Vigouroux's wards, without being acquainted with Dr. Granville's previous experiments. The rationale of the percussion treatment appears to be that, all nervous action being vibratile, therefore the induction of artificial vibration in the nervous elements must be therapeutically beneficial. It might similarly be said that, as all nervous action is electrical, therefore electricity must be the panacea for nervous diseases; but dogmatic assertions of this sort are really worth very little. The value of a mode of treatment like that proposed by Dr. Granville must stand or fall by well-marked and well-attested results of it in a series of cases of defined forms of disease: these are not yet recorded. The author claims for his treatment that by means of it he can relieve pain, control disorderly movements, elicit energy from torpid centres, allay morbid irritability, relieve cerebral and cerebro-spinal irritation and distress, improve the vaso-motor state, cure acne and jaundice from old-standing liver-disease, neurasthenia, indigestion, constipation, tension-albuminuria, and pseudo-diabetes. Time and the experiments of others will show whether these assertions will stand the test of impartial and critical investigations.

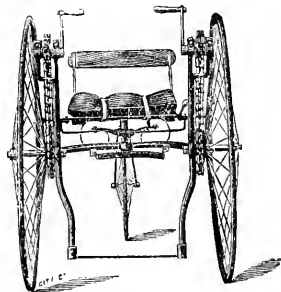
Diseases of the Ear. By GEO. P. FIELD, M.R.C.S., Aural Surgeon to St. Mary's Hospital and Lecturer on Aural Surgery in the Medical School. Third edition. (Renshaw, 1882.)—In this third edition of his handbook Mr. Field has added some interesting material to the information which he gave in the preceding editions. The work contains no 'padding,' and is therefore well fitted for the use of general practitioners and students, who will find it one of the most useful and practical guides to the treatment of diseases of the ear that have ever been published in this country.

NEW INVENTIONS.

ARTICLE 428.

TRICYCLES FOR LAME PERSONS AND INVALIDS.

THE Manchester Tricycle Co., 14 Exchange Arcade, Deansgate, Manchester, have latterly turned their attention to the manufacture of this class of machine, and specimens of them were exhibited at the recent exhibition of tricycles and bicycles held at the Albert Hall.



The accompanying cut represents their 'Favourite' tricycle. The materials of which it is constructed are light and strong, and it should prove a great

boon to that class of invalids who, though deprived of the use of their lower limbs, yet have sufficient strength to propel themselves by their arms.

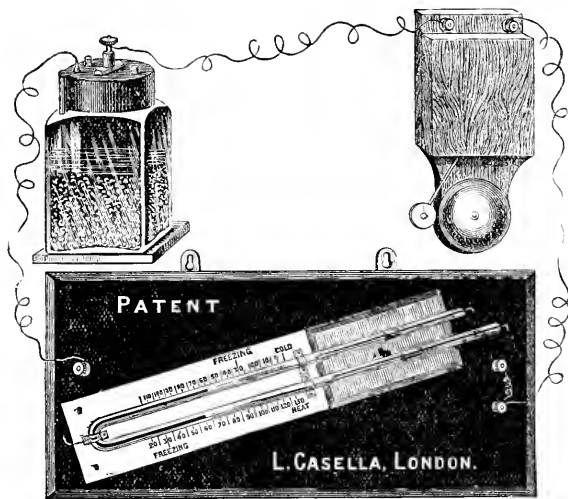
ARTICLE 429.

THE CASELLA-GOOLDEN DOUBLY ADJUSTABLE ELECTRICAL SIXES THERMOMETER (PATENT).

THIS is a meritorious and very useful invention, and its applicability may be said to be almost universal. The appended engraving will enable the reader to follow us in our description.

It will be observed that the thermometer lies in an oblique position, and the intention of the inventors is that it may be enclosed in a case or box to prevent any tampering with it, when once set. The object sought to be attained is to regulate the amount of heat or cold, above or below which the temperature cannot be altered without due notice

figure and, the same results will accrue, should the mercury fall to the point of the wire. It will thus be seen how very useful and reliable this apparatus can be made; and we need scarcely add that the bell may be placed at any distance from the thermometer itself, if it be not convenient to have an attendant at the exact spot. Professional men must at once grasp the advantages to be obtained from this invention, as hospital wards and sick rooms can be kept at any required temperature without leaving anything to chance; but beyond this there are numerous manufacturing processes where a certain amount of heat or cold is absolutely necessary for the proper carrying on of the work, e.g. in breweries, refrigerating apparatus in vessels carrying meat, in the ventilation of theatres and public buildings, and many other cases where it is essential to preserve a uniform temperature, such as chemical and dyeing processes, &c. This invention, introduced by Mr. L. Casella,



being given to attendants or those in charge. Attached to the thermometer and running into the glass tubes are platinum rods with small magnets at the ends; by introducing an ordinary horse-shoe magnet to these, they can be inserted to any position in the thermometric scale. Thus, for instance, if it be required that the temperature of any apartment or manufacturing process should not exceed 65° Fahr., the platinum rod is set at that figure, and, supposing the heat should rise to that, the apparatus, which is in connection with an electrical battery and bell as shown in the drawing, puts the electric current into action; the bell commences ringing, and will necessarily continue to vibrate until the attention of those in charge is called to it, when the error can be rectified. So, also, in the case of cold; should it be necessary for the temperature not to fall below 50° Fahr., the corresponding platinum index is set to that

of 147 Holborn, E.C., provides for a want that, we believe, has never before been introduced in this form.

ARTICLE 430.

RIMMEL'S AROMATIC OZONISER.

THIS agreeable and elegant preparation, manufactured by Mr. Eugene Rimmel, of 96 Strand, consists of particles of the coniferous woods as pine, cedar, &c., which are impregnated with various volatile aromatic oils, eucalyptus oil considerably preponderating. The presence of ozone has readily been detected on examining the air of a room in which some of the above preparation had been exposed, so that it may be legitimately placed amongst our aerial disinfectants, while the odour emitted by it (unlike many disinfectants) is very agreeable, a fact sufficient of itself to recommend it for general use. Medical men wishing to test it can

have gratuitous samples by making application to the manufacturer.

ARTICLE 431.

DIETETIC NOVELTIES.

AUSTRALIAN WINES.

THE introduction of Australian wines some years since into this country was not received with much favour. This failure may be attributed to more than one cause; a bountiful supply of the well-known and established French light wines was available within as short a journey of us as the whiskies of Scotland and Ireland; the destructive phylloxera had not at that time made its ravages amongst the vines of our neighbours, nor had the demand for the lighter wines become so large in the case of the English public as has subsequently been the case, consequently there was not the same necessity for the Australian productions. But there was a deeper reason for the comparative indifference evinced towards these wines. The cargoes delivered here for the first few years were not of that quality or flavour which English consumers have been accustomed to receive from French growers, and what little intrinsic merit was contained in them was in many instances destroyed by the objectionable so-called 'fortifying' system, by the use of coarse German spirit. But, with the exception of the last-named practice, it was no discredit to our young dependencies that they were unable for a time to cope with the largest and most accomplished wine-making nations of the continent of Europe. The knowledge and elaboration of detail required in the manipulation of the grape in its various stages from the vine to the bottled wine, which has been the work of centuries in the older wine-producing countries, was not to be mastered in a few years by a young colony possessing but little knowledge of the processes, however good may be the grape or the climate. The colonists were not, however, dismayed by rebuffs, and from the day the first importations were received here they have never ceased to endeavour to improve their wines, and to compete with their more favoured rivals. That they have succeeded, has recently been shown in a marked manner. At the recent International Wine Exhibition held at Bordeaux, an extensive assortment of Australian wines was exhibited. These were not mere sample bottles, but the wine was sent in bulk and in no inconsiderable quantity, and was sampled at the French port for the Exhibition. The result proves how sound were the conclusions arrived at by the shippers, for no fewer than sixteen gold and twenty-nine silver medals have been awarded to these wines by the jurors, constituting a most unparalleled success. The whole of these prize brands selected have been purchased by the Australian Wine Company, Limited, of Mill Street, Hanover Square, who have also arranged for a continuous supply of the same qualities. This company have done much to develop the taste for the colonial wines, and one feature on which they have always laid great stress is, that they will on no account receive any but pure wines, or that pay more than the orthodox one shilling per gallon duty. At the present time, all the wines from the Bordeaux Exhibition, as well as many others of merit, can be tasted at the cellars of the company, who can, it will be found on trial, supply wines of greater intrinsic value in proportion to price than can be now ob-

tained from France. The prize brands of Australian wines are named the 'Emu' brands, and contain both red and white, comprising 'Rieslings,' 'Chaselas,' white and red Hermitage, &c., and the company's cellars contain other descriptions from each of the wine-growing colonies, those of the cheap claret class being remarkable for low price, good flavour, and rich colour.

MISCELLANY.

DOMESTICITY AS A CAUSE OF INSANITY.—Mrs. M—, aged forty-four, mother of eight children, had acute mania. The husband, when asked if he could suggest any cause for her illness, exclaimed with much animation that he could not conceive any reason. 'She is a most domestic woman; is always doing something for her children, is *always* at work for us all; *never* goes out of the house, even to church on Sunday; never goes gadding about at the neighbours' houses, or talking from one to another; has been one of the best of wives and mothers, and is *always* at home.' The superintendent of the Hartford Retreat for the Insane (from the report of which institution this case is taken), in commenting on it, says: 'This appreciative husband could hardly have furnished a more graphic delineation of the causes of his wife's insanity, had he understood them ever so thoroughly.'

THE importation of artificial eyes in the United States is about 10,000 annually, and recently the manufacturing of them has become a home industry.

TOBACCO STATISTICS.—The most recent returns on the production of tobacco in various countries give the following results:—Asia produces 31,000 quintals (100 lbs. avoirdupois) of tobacco; Alsace-Lorraine, 160,000; Bavaria, 156,000; the Duchy of Baden, 242,000; North Germany, 100,000, of which Prussia furnishes the fourth part; the Low Countries furnish 85,000 quintals; Italy, 93,000; Russia, 180,000; Austria, 1,000,000. In America the Brazils produce 300,000; Cuba, 610,000; North America, 3,400,000. The total quantity produced amounts to 18 million quintals. The annual quantity consumed in Russia, France, and England, is at the rate of 1 lb. per inhabitant; in Italy at the rate of 1½ lb; in Austria 2½ lbs. In the United States and Germany 3 lbs.; in Belgium 4½ lbs.; and in Holland 5½ lbs.

IMPORTATION OF OPIUM IN THE UNITED STATES.—It is stated in the *Philadelphia Medical Times* of December 2, 1882, that in the year 1880 there was imported into the United States the enormous quantity of 372,000 pounds of opium, which is equivalent to nearly three million of doses. But the United States is a large country, and so even this enormous number of doses means only one dose a year for every sixteen persons. When it is remembered how freely opium is used externally it would seem probable that the quantity is not beyond what is required for proper medical use, and that the opium habit about which so much is written requires no perceptible allowance for its gratification.

EDUCATION AND INSANITY.—The number of the male inmates of the lunatic asylums in Prussia is computed at 12,706. The public asylums for the insane in 1878 contained 877 male inmates belonging to the educated classes, amongst whom were 227 officials, 179 professors or schoolmasters, 95 architects, as many clergymen, 61 chemists, 57 doctors, 12 veterinary surgeons, 10 actors, or other artists, &c. In 1879, among 13,365 insane male patients, 306 of the patients all belonged to the same class; 252 officials, 161 professors or schoolmasters, 67 clergymen, 52 chemists and druggists, 49 doctors, 5 veterinary surgeons, and as many actors and other artists. In the same year there were in the asylums 189 students, and 671 insane patients from fifteen to twenty years of age.

The London Medical Record.

ARTICLE 432.

TROITZKY ON CONVALLARIA MAJALIS.

BASED on his remarks on very numerous and careful experiments on frogs, sparrows, hens, dogs, and men, Dr. N. V. Troitzky (*Pratch*, 1881, No. 15; and 1882, Nos. 18, 40, and 41) gives the following sketch of the pharmacological action of the aqueous extract of lily of the valley.

1. *Heart*.—*a*. Convallaria in large doses does not stimulate the cardiac terminations of the vagi. *b*. It does not stimulate the acceleratory cardiac nerves. *c*. It stimulates the central inhibitory apparatus. *d*. It paralyses the motor centres situated in the heart itself.

2. *Respiration*.—*a*. At first there is increase in frequency, due to the irritation of the respiratory centre in the medulla oblongata. *b*. Then follows retardation, with a considerable deepening of inspirations; and, finally, about a quarter to half a minute after the heart's arrest, a complete stoppage of respiratory movements occurs. This is a result of paralysis of the respiratory centre. The latter becomes paralysed under the influence of venosity of the blood, developing from the heart's failure.

3. *Temperature*.—At first, this rises (0.5° to 1° Cent.), then falls very considerably in the axilla and rectum alike (e.g., two hypodermic injections of a centigramme into a puppy caused the temperature to fall from 38.5° to 33.6° Cent. = 101.3 to 92.5 Fahr.) The reduction depends upon the fact that convallaria paralyses the vaso-motor centres; hence dilatation of all the vessels, and an increased loss of heat from the surface of the body.

4. *Blood-tension*.—In the beginning, the arterial pressure is increased. This is due to stimulation of the vaso-motor centres and contraction of the peripheral vessels. When the doses given are large, the blood-pressure falls in consequence of paralysis of the vaso-motor centres.

5. *Gastro-intestinal Tract*.—On administration, both internally and under the skin, large doses of extract of convallaria produce salivation, vomiting, and increase of peristaltic action.

6. *Kidneys*.—The daily amount of urine is considerably increased.

7. *Brain*.—In all cases there is observed some amount of somnolence, depending on anæmia of the nervous centres, which results from paralysis of the vaso-motor nerves of the abdominal cavity.

8. *Reflexes*.—In the first stage these are lowered, in consequence of stimulation of Setchenoff's centres; in the second stage the latter are paralysed, and the reflex action, accordingly, is increased.

9. *Muscular System*.—Brought into direct contact with the substance of striated muscles, extract of convallaria causes a complete loss of contractility.

Taking into consideration all the facts above, as well as his clinical experience, Dr. Troitzky lays down the following indications for the therapeutic application of this extract. It is indicated in cases in which it is desirable—1. to make the heart's contractions

stronger, slower, and more regular, especially in cases of organic cardiac disease, as well as in such cases where an increase in frequency depends on changes in the nervous centres; 2. to lower the temperature of the body in so far as this may be attained without any harmful influence on the cardiac muscle; 3. to diminish hyperæmia of the nervous centres by drawing blood away from the latter to the bowels; 4. to increase the arterial tension; 5. to increase the secretion of urine in dropsy; 6. to lower the reflex action. As to the contra-indications, they are these:—1. gastric and intestinal catarrhs; 2. acute affections of the liver, kidneys, and spleen; 3. inflammation of the uterus and ovaries; 4. pregnancy; 5. fatty degeneration of the heart; 6. hæmorrhoids.

The author recommends the following formulæ:—*(a)* Sixteen grains to two scruples of powder, convallaria daily as a laxative (originally given by Cazin and Fossagrives); *(b)* four or five spoonfuls daily of an infusion (fifteen to forty grains to the ounce); *(c)* from a fourth of a grain to one grain of the aqueous extract of the flowers in pills; *(d)* one or two of the alcoholic extract of the flowers as a laxative (Schulze).

In the *Pratch*, 1880, No. 4 F, p. 773, is to be found another paper by the same author, in which he gives his results of the administration of infusion of lily of the valley in cardiac neuroses and organic disease. He states that in cases of simple mitral insufficiency convallaria, like digitalis, acts better than in those of disease of the aortic valves, and in mitral insufficiency complicated with stenosis. In the former category of the cases, in the stage of compensation, two or three days' use of infusion of convallaria (ten grains to six ounces, two tablespoonfuls daily) produces a most beneficial influence on palpitation, dyspnoea, and irritability of the patient, the relief lasting from five to nine days. The results are as satisfactory in the stage of disturbed compensation, in which three or four days' administration of the infusion (from ten to twelve grains of the flowers to six ounces of water, three or four tablespoonfuls a day) cause dyspnoea, œdema of the feet, and *râles* in the lower lobes of the lungs to disappear for seven or eight days. Then convallaria may be again used. The drug has no cumulative action whatever. Dr. Troitzky's observations were in general confirmed by Dr. N. Bogoiavlensky, who carried out his investigations into the action of tincture, extract, and infusion of convallaria in Professor Botkin's laboratory and clinic (see *Pratch*, 1880, No. 49, p. 803; and by Dr. S. Isaieff, who experimented on convallamarin at Professor P. P. Sushchinsky's laboratory (*Pracheb. Vedom.*, 1881, No. 456, p. 2055, and No. 457, p. 2066). All three authors conducted their researches entirely independently of each other from the beginning to the end. Dr. Kalmykoff very favourably speaks of the action of convallaria (*Proceedings of the Charkov Med. Society*, 1881, No. 1). He administered an infusion ($\frac{1}{2}$ to $\frac{1}{4}$ j.) in five cases of mitral insufficiency with cirrhosis of the liver and chronic nephritis; he draws attention especially to a powerful diuretic property of the remedy. In all his cases there were observed a rapid disappearance of œdema and diminution of ascites. [On the action of convallaria in cardiac neuroses, in intermittent fever, pneumonia, &c., see also Drs. Simanovsky's and Alfayeff's papers in the LONDON MEDICAL RECORD, Oct. 1881, p. 404.—*Rep.*] V. IDELSON, M.D.

ARTICLE 433.

CECCHERELLI ON NERVE-STRETCHING.

DR. CECCHERELLI (*Lo Sperimentale*, 1882) contributes a very complete and interesting summary of the literature and results of this operation. He divides his subject into two parts. In the first he collects the anatomical and physiological facts, and in the second he describes the operation, the indications for its employment, and the results so far obtained.

As to how much the nerve is to be stretched, he cites many experiments in animals, and gives Frombetta's careful experiments as to the weight the different nerves removed from the body are able to sustain. He does not think these experiments of much practical good; the surgeon must be rather guided by the sensation of greater or less elasticity and resistance which he experiences. The anatomical lesions are of the perineurium, capillary vessels, and nerve-tubes, causing exhaustion and degeneration. The physiological effects are interruption of the ascending sensory current and continuance of the descending motor current; hence, perhaps, the frequent failure of nerve-stretching in tetanus (Artaud and Gilson). Quinquaud observed that in stretching one sciatic nerve, for example, there was also anaesthesia of the area innervated by the sciatic of the opposite side, and sometimes also in that of the crurals of the two sides. On stretching the right sciatic, there was anaesthesia of the right limb posteriorly; stretching shortly afterwards the left sciatic, there were anaesthesia of the left limb posteriorly, and return of sensibility in the right limb. When a nerve is stretched, the effect is therefore transmitted to the posterior part of the medullary axis. Labor and Deboue divided the spinal cord and caused epileptiform movements; they stretched the sciatic nerve, and the movements were suddenly diminished. Wiet and Marcus found that, when the pneumogastric was stretched, the movements of the heart were accelerated.

The conclusions from these facts, and, as corollary, that the stretching of a nerve produces ecchymosis under the perineurium, rupture of the nervous fibres, and ascending degeneration, as in partial section of a nerve, would be, that nerve-stretching causes loss of sensibility; that the sensory ascending current disappears, while the motor or descending current is preserved; that it affects the centres and may cause trophic disturbances with persistence or not of anaesthesia. Moderate stretching produces anaesthesia in the territory of the nerve without loss of motility; violent stretching causes prolonged and persistent anaesthesia with constant alterations of motility and nutrition. The frequency of functional disturbances of parts far from the seat of operation proves that the spinal cord is influenced by the stretching of certain nerves (the sciatic and brachial plexus); for lesser nerves and for cords farther from the medulla, further researches are necessary. Notwithstanding the microscopical lesions which have been observed, the manner in which the distension acts is not yet determined (Chauvel).

In the second part, Dr. Ceccherelli describes the operation. He recommends the incision to be made as near the supposed seat of irritation as possible, the stretching to be made in the centrifugal and centripetal directions, and not excessive, with the finger or blunt hook. With the finger the surgeon

is best able to judge, by the elasticity and resistance, of the force required. Nerve-stretching has been tried in many diseases, peripheral neuralgia, spasmodic affections, epilepsy, paralysis, tetanus, ataxy, anaesthesia in leprosy, &c. The author collects 252 cases, the results being 37 deaths, 16 failures, 34 cases improved, 156 cures, and 9 in which the result is not stated. Nerve-stretching has been most successful in peripheral neuralgia; out of 99 cases 74 were cured, 12 improved, 7 doubtful, and only 6 failures. In contractures, 14 cases, there were 12 cures: in facial tic, 7 cases, 6 cures; in traumatic spasms, 12 cases, 10 cures; in peripheral paralysis, 34 cases, all successful. Although experiment proves that nerve-stretching influences the spinal cord, in disease of central origin its effects are unsatisfactory. In 36 cases there were 5 cures, 16 improved, 7 failures, 8 deaths; epilepsy, 4 cases; 1 delayed success, 3 improved; tetanus, 45 cases; 14 successful, almost, if not all, cases of partial tetanus only; 2 results not stated, 29 deaths. In ataxy it has been most unsuccessful. Langenbuch gives 16 cases with 6 cured; but Bernhardt and Westphal say they have never seen a case improved or cured. Doove thinks the 'lightning' pains may be relieved by it. Vizioli also thinks that mechanical distension of the hyperaesthetic nerves, inducing a changed position of nervous molecules, may modify the muscular grouping by which excitability was exalted and the return to the normal state may ensue. The author concludes that in all cases in which the lesion is peripheral the effect is certain, almost without danger, and more prompt than by any other mode of treatment. In central lesions, all may fail; in extreme cases, extreme remedies; therefore, it is only to be tried in extreme cases. If by it we could promise improvement or diminution of any one of the grave symptoms, it would be the surgeon's duty to operate, but as yet we cannot say even at much.

G. D'ARCY ADAM M.D.

ARTICLE 434.

HAY ON NITRITE OF SODIUM THE TREATMENT OF ANGINA PECTORIS.

DR. MATTHEW HAY, Demonstrator Practical Materia Medica in the University of Edinburgh, contributes to the March number of the *practitioner* an interesting and valuable paper on the use of nitrite of sodium in the treatment of angina pectoris. Dr. Hay on three separate occasions gave five, ten, and twenty grains of the salt, and noted that it produced acceleration of the pulse, flushing of the face, and fullness in the head arteries, accompanied by a throbbing sensation.

The similarity of the effects of nit of sodium, nitrite of amyl, and nitro-glycerine suggested that the peculiar action of these bodies is dependent on the nitrous acid present in them. Gamgee has shown that the clinical action of nitrite of amyl on the blood is identical with that of other nitrites, nitrite of sodium for example. Moreover, it is hardly conceivable that two salts such as nitrite of amyl and nitro-glycerine should so completely agree in their physiological action, were it not the acid which is common to both is the essential factor.

The physiological action of metallic nitrites has been investigated by Barrois, Reichert, and Weir Mitchell. Barth's observations were made at Bonn in 1878, and were undertaken with the purpose of investigating the poison action on cattle of

nitrite of sodium (Chili saltpetre) used as manure. Barth showed that these poisonous effects were due to the presence of nitrite of sodium as an impurity. Binz, as the result of a number of observations, found that the nitrite produced decided and often lethal effects. The animals first became drowsy and giddy; and frequently fibrillar contractions of the muscles, with yawning and vomiting, were observed. Soon the breathing became laboured, and death occurred, unpreceded by spasm or convulsion of any kind. The nervous tracts were evidently paralysed, and paralysis both of muscles and nerves was observed in frogs. Rabbits and dogs were frequently purged by a large dose of the nitrite even when injected subcutaneously, and if the dose proved fatal the mucous membrane of the intestinal canal was usually found reddened and inflamed. The minimum lethal dose injected subcutaneously was for a rabbit about three grains. A dog weighing nine pounds was killed in four and a half hours by a dose of four grains given subcutaneously. Binz attributes the irritating action of the nitrite on the intestinal canal to the acid of the salt being there set free and becoming decomposed, forming nitric acid and nitric oxide. Reichert and Weir Mitchell, from an exhaustive research on the properties of potassium nitrite, concluded that in physiological action it was almost identical with nitrite of amyl. They observed the effects of the salt on man as well as on the lower animals, and arrived at the following conclusions.

The salt exerts a very feeble narcotic influence on the brain of mammals, more marked in the case of the frog, and the convulsions are clonic in character, cerebral in origin. Nitrite of sodium paralyses both the motor and the sensory portions of the spinal cord, acting much more quickly on the former; it diminishes the function of the motor and sensory nerves, ultimately paralysing them. It primarily increases the pulse rate, and secondarily diminishes it, and at the same time lessens the force of the pulse. It primarily raises the blood-pressure from a direct action on the heart, and secondarily lowers it by causing vaso-motor and cardiac paralysis. The respiratory centres are first stimulated and afterwards depressed; and death is due to paralysis of the respiratory centres, when not dependent upon cardiac paralysis. It at first slightly elevates the temperature, and afterwards considerably depresses it; it finally paralyses the voluntary muscles and merely impairs the function of the involuntary muscles; and it primarily stimulates, and secondarily depresses, the heart.

Dr. Hay gives a detailed account of a case of angina pectoris in which nitrite of sodium was given with very satisfactory results. His prescription is as follows:—*R Sodii nitritis* ℥ss., *aquæ* q.s. ad ʒvi. Solve. Sig: Dose, one to two teaspoonfuls. This dose produces no perceptible throbbing in any part of the body, and no headache. Care must be taken to obtain the pure nitrite; for, unless carefully manufactured, it is apt to be contaminated with nitrate of sodium.

WILLIAM MURRELL, M.D.

ARTICLE 435.

WOAKES ON A NEW THEORY OF DIPHTHERIA.

THERE is no creed in medicine. The freshest confirmation of this doctrine is to be found in certain recent original observations on diphtheria, which have led Dr. Woakes to describe this disease as a

simple neurosis arising in persons deficient in tone, especially in vascular tone. It is by him considered to be in fact an atonic inflammation, and akin to a common cold in its theory of causation. The history of its production is thus to be read. The patient is in an exhausted nervous state (extremes of climate are particularly noted as accountable for this), and the vaso-motor control is consequently lowered. He is then exposed to some strong peripheral irritation or shock, *e.g.* cold. The impression so produced is conveyed by the afferent fibres of the sympathetic in the pharyngeal mucous membrane to their central cells in the superior sympathetic ganglion, and through these exhausted centres produces a vaso-inhibitory action by means of the efferent sympathetic fibres going to the pharyngeal vessels, which under the circumstances is not soon replaced by a healthy tonic reaction. There is persistent local inflammation of low type.

The parietic muscular condition is similarly explained. The vaso-inhibitory action extends to those vessels which supply nerves, as the *vagus* (*vasa nervorum*), and receive their vaso-motor fibres from the centre originally impressed by the peripheral irritation. Hence pharyngeal muscular paralysis, and a heart soon exhausted by rapid action unqualified by vagal control.

The contagiousness of diphtheria is treated on a different hypothesis. The infective element is supposed to be a modified constituent of normal tissue—namely, a lymphoid cell. A layer of these has been described by Luschka as found in the mucous tissue of the pharynx. According to the new theory of diphtheria, these undergo abnormally rapid development in the inflammatory process, and, on being shed at the mucous surface, many—probably almost as soon as formed—become the infective particles of the diphtheritic membrane, and are capable of exciting in any suitable—*i.e.* atonic raw or mucous surface—the train of changes to which they owe their morbid characters.

There is a good deal in the history of diphtheria which gives support to the vaso-dilator view of its causation. Thus, it has been frequently observed that persons from some cause enfeebled are readily affected by it; and common experience has shown that vaso-motor changes are particularly associated with a physique impaired by over-exertion or under-feeding—witness the drained constitutions which are the subjects of hysteria. Moreover, the occurrence of the disease sporadically, it would appear—in high and dry localities exposed to winds, and presumably well ventilated—suggests a climatic agency.

Moreover, the view of lymphoid cell contagion is in certain points allied to that which recognises the action of specific disease-germs, to which the communicability of diphtheria is now commonly ascribed. All these organisms alike belong to that low grade of vegeto-animal life which is characterised by the mutability of its forms, and no less by their apparently unlimited powers of self-propagation. Buchner held, with some reason, that the harmless hay-bacillus became, when bred in animal substances, identical with the highly infective bacillus of anthrax. The small-pox germ, conversely, has been found, on successive propagation through the cow, to become innocuous. The question may naturally suggest itself, Is it not possible for a lymphoid cell in a state of abnormal activity of growth to become a morbid excitant of oversensitive tissues? Perhaps the strongest argument in support of this view is to be

found in the phenomenon of 'malignancy.' No bacterial clue to this condition has been demonstrated; but, instead, the rapidly growing cell-elements of the parent tumour reproduce its like in distant parts, and even, according to Dr. Creighton, infect normal gland-cells so as to make them take on a morbid action.

But it must be remembered that the only part of the new diphtheritic theory which rests upon proof, is that which describes the process of local congestion, the method of the disease. This is simply a history of inflammation, and is characteristic of that change in other than the diphtheritic state. We do not deny that apparently simple sore-throats found in the same house with diphtheria are suggestive of a common origin; but the concurrence is explicable on other theories than the purely vasomotor, and we require to have it shown why, if atony and exposure constitute the causes of diphtheria, most feeble persons who have tonsillitic throats from exposure do not exhibit the other symptoms and characteristic sequelæ of that disease.

With regard to the lymphoid element of contagion and its effects on tissues favourable to its development, proof is wanting. No doubt the mucous tissue abounds in such elements, but the presence of bacilli and spores, especially in diseased states, has also been often demonstrated. By which of these means is the disease propagated? Which is the essential irritant of afferent nerve-fibres? In other infective diseases, as tubercle and anthrax, recent observation has shown beyond doubt that this power resides in the bacilli; and though investigation has not proceeded so far in regard to the exanthemata of diphtheria, still the persistence of specific peculiarities in each of these disorders, the transference of these unchanged from subject to subject, and the want of clear proof of the existence of hybrid diseases, support the view that in every such infective morbid state the essential agent is a special foreign germ, able to bring about in the animal body its own peculiar pathological state. How far this germ owes its characters to its habitat, and communicates a condition of which it is itself the subject rather than the primary cause, remains still open to question.

The means of contagion is therefore the point which has still to be settled in regard to diphtheria; and so far, we must admit that the bulk of evidence goes to show that this consists in some form of bacterium. Neurotic influence is the admitted method by which any form of germ can produce its local manifestations; but it has not yet been shown to be in diphtheria more than the mode of action of an undetermined cause.

B. G. MORISON, M.B.

ARTICLE 436.

VOHSEN ON ACUTE RHEUMATISM IN CHILDHOOD.*

DR. VOHSEN, within the limits of a brief paper, excellently summarises our present knowledge of acute articular rheumatism, without, however, adding much that is new. Concerning the vexed question of etiology, he is forced to confess that our information has not kept pace with our knowledge of the general course of the disease or its complications. He refers to the influence of cold as a cause, through

arrest of skin-action, and the consequent retention in the blood of lactic acid and potash salts. Referring to the general opinion that acute rheumatism is not an infectious malady, he quotes Hirsch, to the effect that it frequently occurs in an epidemic form, and so independently of recognised external causes as to almost assume the character of an acute infectious disease.

The author goes on, in confirmation of this view, to give the results of twenty cases under his own observation from the years 1873 to 1881 inclusive, half of which occurred in the first half of 1880, the remainder being about equally distributed over the rest of the time. Lebert's experience in Zurich is somewhat in the same direction; the yearly average of about forty cases suddenly increasing to about sixty-two in 1857. The discovery by von Recklinghausen of micrococci in a case of acute articular rheumatism is referred to, as being in favour of the infectious nature of the disease; and, on the other hand, the favourable therapeutic results which follow the administration of salicylate of soda are regarded by many as presumptive evidence of its infectious character.

The author considers the relationship of chorea to acute rheumatism, and its associated endocarditis, as still an open question, notwithstanding the extensive discussion that has taken place. As illustrative of very opposite experiences, he quotes Steiner, who found only four of 252 cases of chorea that were associated with rheumatism; whilst Sée, among 77,500 sick children, met with 48 cases of rheumatism and 67 of rheumatism and chorea. Roger, whilst believing in an interdependence of rheumatism, heart-disease, and chorea, nevertheless discriminates between a rheumatic, a cardiac, and a rheumatico-cardiac form of the last-named malady. Bouteille records an exceptional case of the occurrence of chorea in a man 80 years old; but it is especially characteristic of the rheumatism of childhood, and, according to Soltmann, mostly occurs between the ages of 7 and 14 years.

Of the twenty cases which formed the basis of the author's experience, only one was complicated with a mild chorea, and in that an acute infectious disease developed in the course of the rheumatism.

Von Meynet, and subsequently Hirschsprung and others, have described numerous small tumours of the size of a pea, and larger, in the neighbourhood of the affected joints, disappearing after a short time. Single examples of the rarer complications, 'peliosis rheumatica,' and 'erythema nodosum,' were met with in the twenty cases; and the author's experience goes to show that there is no complication of rheumatism of joints occurring in adults which is not met with in children, whilst he is not aware that the paralysis of the ocular muscles, which is occasionally known to follow the repeated rheumatism of the grown-up, has been found in children.

The average duration of mild cases in adults appears to be about two to three weeks, and in children five to eighteen days.

Passing to the very important question of the relationship of heart-complications to acute rheumatism, the author criticises at some length the claim of Bouillaud, who is generally credited with having been the first to point this out in 1836. That some connection does exist, is undoubted. Lebert, in 140 cases of rheumatism of joints, noted thirty-three with acute heart-complication. Von Dusch, out of forty-five cases of endocarditis, traced twenty to rheuma-

* *Jahrbuch für Kinderheilkunde*, Vol. xix., Part I.

tism. Of the author's twenty cases nine presented endocarditis, two of which exhibited pericarditis also; of these he gives a detailed record, and the *post mortem* appearances of four.

The ages of the cases were between 9 and 14 years, and five were boys. The heart-complication commenced in the first week of the rheumatism in two of the children, in the second week in three, and the remainder in the fourth and fifth week.

The temperature never exceeded 103°, and the swelling of the joints was very slight; the pain, however, being generally severe.

Dr. Vohsen thus formulates our present knowledge of this subject.

1. In almost half the cases of rheumatism of joints there occur endocarditis, and, later, valvular defects.

2. The mitral valve and the pericardium appear to suffer most frequently, and endocarditis is usually developed in the first week of the disease.

3. Whilst salicylate of soda exerts a most beneficial effect in relieving the affections of the joints, it has no influence on the course of the heart-complications.

4. The mildest form of rheumatism of joints, as shown by slight fever, little swelling, and very transient pain, seems especially to predispose to heart-complication, and hence indicates the necessity for careful examination in the mildest cases.

What determines the heart-complications in acute rheumatism still remains most uncertain. No reason can be assigned on anatomical or physiological grounds for the only peculiarities of the infantile heart, viz., the nodules of Albinus situated at the cardiac orifices of the veins, and the relative narrowness of the aorta at the opening of the ductus Botalli. These are most marked during the first year of life, when acute rheumatism and endocarditis are of most exceptional occurrence. Bouchut, from an experience of 200 necropsies, concludes that nine-tenths of children dying with febrile affections have endocarditis.

A possible explanation of the problem may be found in looking at acute rheumatism as an infectious disease, and regarding the infantile heart as possessed of slight resisting power to the virus of the infection; and the figures of Von Dusch lend some support to this view, for out of forty-five cases of endocarditis fifteen were idiopathic, twenty were associated with acute rheumatism, and the remainder with distinct infectious diseases. The fundamental similarity in structure of the endocardium and the synovial membranes, may account for the frequency of both being the sites of the structural manifestation of the virus.

Dr. Vohsen, in favouring this view, dwells on the frequent semi-epidemic character of acute rheumatism, and the well ascertained relationship between endocarditis and the recognised acute infectious diseases.

W. H. ALLCHIN, M.B.

ARTICLE 437.

KÜMMELL ON CORROSIVE SUBLIMATE AS AN ANTISEPTIC SURGICAL DRESSING.

DR. KÜMMELL, of Hamburg (*Centralbl. für Chirurg.*, No. 29, 1882), has for some time used corrosive sublimate in surgical dressings with excellent results, basing his practice on Koch's recommendation of that substance as a most powerful antiseptic, even in very dilute solutions. As disinfectant fluids, simple solutions (as 1 in 1,000)

have been used in large quantities, and so far indications of the action of the mercury on the system (very transient salivation), have been observed in only two debilitated patients. Sublimate solutions, like 1 in 20 solution of carbolic acid, make the hands rough and harsh, but without producing tingling or anaesthesia.

The carbolic solution is used only for the spray, and to disinfect those instruments which are attacked and blunted by the sublimate. Sponges and compresses lie constantly in a 0.1 per cent. sublimate solution, and all the dressing materials are prepared with the same substance. Sublimate *silk* is prepared by boiling the raw material for two hours in a 1 per cent. solution; it is then kept in a 0.1 per cent. solution. An excellent sublimate *catgut* also is prepared by placing the catgut for twelve hours in a 1 per cent. watery solution, rolling it tightly up and preserving it in a 0.25 per cent. spirituous solution of sublimate to which 10 per cent. of glycerine is added.

Sublimate *cotton* and sublimate *gauze* are prepared as directed below.

To provide a dressing which might be disinfected by means of heat or the mineral acids, and rendered antiseptic by corrosive sublimate, which should readily absorb wound secretions and have the additional virtue of cheapness, inorganic materials have been used, namely, sand, ashes, and glass-wool.

Ordinary white quartz *sand* is employed; it is thoroughly heated in a crucible and prepared as directed below. This is applied after the fashion of iodoform as an antiseptic powder. Thus, wound-cavities may be filled with it, and covered in with a few layers of sublimate gauze and a bandage; or the wound may be stitched, drained with the capillary glass drains, covered with the glass-wool and a thick sprinkling of the sand, the gauze and bandage. This dressing is applicable in cases of operation wounds about the extremities and head, abscesses, fistulae, &c.

When the glass and sand dressing cannot be conveniently applied, the *ash cushion* is useful. Ordinary coal-ash is prepared as directed below, and enclosed in thin cotton bags. The cushions are made in five sizes, from 12 to 40 square centimètres. They sit closely on even the most irregular surfaces, and exercise slight compression.

The glass-wool is prepared as directed below. It is easily cleaned and disinfected by means of concentrated acids; and its absorbent power, due to its action as a surface drain, confers on it many advantages over the ordinary protective.

The glass-wool (or glass-silk), plaited in various thicknesses, forms excellent drains. Its fibres are exceedingly slender, and take up so little room in the tissues as never to lead to the formation of a drain canal; union takes place immediately they are removed; their capillary action is continuous, and is not interrupted by any kind of dressing (sand, gauze, &c.), and will bring discharge to the surface even vertically from the bottom of a cavity. In certain situations, where counter-incisions cannot be made, they are invaluable—as after removal of large cervical tumours which reach down behind the sternum, and in the drainage of Douglas's space. Nevertheless, they are suited only for aseptic wounds; for purulent fluids, the old drainage-tubes are necessary.

Inorganic dressings are easily used. The glass

drain is inserted, a thin layer of glass-wool is placed over the wound, then one or two small slightly damped ash-cushions, and over all a large ash-cushion, kept in place by a tolerably firm gauze bandage. The first dressing is retained till the wound is presumably healed; in about seven to ten days, in small wounds earlier, the dressing is changed and the glass drain at once removed, and a further dressing of sand or a cushion at once applied; this last dressing remains till the wound is definitively closed.

Pyrexia is usually unknown in such cases, and 'aseptic wound-fever' is more rarely observed than with any other antiseptic dressing: union by first intention occurs with a certainty and regularity unheard of under even the strictest Listerian treatment; drain-fistulae have not yet been met with, nor has eczema of the skin, from this dressing and treatment.

Kümmell has obtained union by first intention in very short periods in this way: in thirteen days in an amputation in the thigh, five to eight days in herniotomies, in fourteen days in smaller necrotomies.

The materials named above are obtainable everywhere, and are very cheap. The sublimate for 100 litres of the strong solution costs about 7*d.*; the æthereal solution of sublimate used to prepare 10 kilogrammes of sand costs about the same sum; the preparation of 25 kilogrammes of sublimate ash costs rather more than a halfpenny; the materials needed for two dressings of a typical thigh amputation, including bandages and sublimate solution, cost less than 1*s.*; for herniotomies, about 5*d.*

Since the introduction of this method of dressing in that part of the Hamburg Hospital where it is employed, no disease due to wound-infection has attacked a patient so treated; formerly such diseases were there 'frightfully' frequent.

The two points the author insists on in carrying out this treatment are: strict primary antiseptics, down even to the minutest details, and the retention of the first dressing as long as possible, till the wound is presumably healed.

The following directions are given for the preparation of the inorganic dressings.

The Ash Cushions.—1. The sewed bags are washed with green soap and soda, rinsed first in clean water, and then in solution of corrosive sublimate (1 in 1,000), dried, and packed away in suitable boxes. 2. About one day before they are filled these bags are soaked in solution No. i., wrung out, and hung up to dry on a rope, which also previously had been washed in sublimate solution. 3. Ten kilogrammes of the ashes, carefully passed through a sieve, are weighed out and gradually added, with constant stirring, to one litre of sublimate solution No. i. 4. The bags, filled with ashes to the prescribed thickness, are stitched up with thread soaked in sublimate solution (1 in 1,000). The large sized cushions, Nos. i., ii., and iii., are not stitched across; No. iv. has one cross row of stitches; No. v. two such rows crossing each other; while No. vi. has several such rows. The prepared cushions are then stored away in a close-fitting tin box.

Sublimate Sand.—Ten kilogrammes of sand, thoroughly roasted and passed through a fine sieve, are slowly stirred up in 100 grammes of an æthereal solution of corrosive sublimate, No. iv. (10*o* sublimate: 100*o* ether).

Sublimate Gauze and Cotton.—Cotton-wool (as

prepared for dressings) is soaked in the sublimate solution No. ii., in an enamelled iron vessel, passed through a wringing machine, wrapped up in rolls, and dried for several hours in the air, or in a hot air chamber. The gauze is prepared in a similar way, but directly after the wringing out is cut up in pieces of six metres length, and placed in layers in a tin box.

Glass-Wool and Glass-Drains.—The glass-drains are made of four sizes, and are plaited in three strands; these, as well as the glass-wool, are kept in a 1 per cent. sublimate solution. Before beginning the preparations of these dressings, the glass table, and every other vessel to be used, must be washed out with sublimate solution No. iii.

Sublimate Solution.—No. i. Sublimate, 25*o*; distilled water, 4475*o*; glycerine, 500*o*. No. ii. Sublimate, 100*o*; rectified spirit, 4490*o*; glycerine, 500*o*. No. iii. Sublimate, 50*o*; distilled water, 5000*o*. No. iv. Sublimate, 1000*o*; sulphuric ether, 10000*o*.

ARTICLE 438.

FINGER ON MILIARY TUBERCULOSIS OF THE MUCOUS MEMBRANE OF THE MOUTH.

DR. ERNST FINGER (*Allgem. Wien. Med. Zeit.*, 1883, Nos. 4 and 5) records three cases of acute tubercular ulceration of the mucous membrane of the mouth, and appends a minute description of the microscopic characters of the lesion, which in some points differ widely from those hitherto recorded by Virchow and others. In all the cases, tubercular disease of the lungs was diagnosed during life and verified after death, and in two of them bacilli could be demonstrated by Koch's method.

In his first case, Dr. Finger found extensive ulceration on the right side of the mouth, invading the gums and occupying nearly the whole of the buccal mucous membrane on that side; a second smaller ulcer was situated on the lower lip close to its margin. The surface of these ulcers was flat, shallow, and slightly granular with irregular points of secretion; the edges were clearly defined and irregularly crenated.

In the tissue round the ulcers, and in places in the edges of the ulcers themselves, were scattered numerous small nodules varying in size from that of a small pin's head to that of a millet-seed, and of a greyish white colour, almost transparent. The mucous membrane in which they were embedded was intensely injected, but otherwise unaltered.

As the disease progressed, these patches of ulceration showed no tendency to healing, but rather increased as the small nodules successively softened and broke down, forming confluent ulcers of similar character, fresh tubercular nodules becoming in their turn developed around them. Examined microscopically when removed *post mortem*, these patches of ulceration showed the whole sub-mucous tissue, and the muscular tissue to a considerable depth, invaded by small cells. In this infiltrated area, pushing aside the connective tissue and the muscular bundles, were a considerable number of larger or smaller miliary tubercles with one or more giant-cells, and a reticulum stuffed with epithelioid and granulation-cells. Besides these, however, certain changes were observed in the small salivary glands. Upon the authority of Professor Virchow, the opinion had

always been held that these glands enjoyed immunity from tubercular infection. Here, however, Dr. Finger was able to prove without doubt the occurrence of miliary tubercles in the salivary glands of the lip, partially or completely filling up the acini. 'While, on the one hand, the thickening of the septa, the profuse nuclear proliferation in the connective tissue forming them, left no room for doubt that such changes were associated with the formation of the tubercle, I found, on the other hand, many sections that pointed clearly to the active participation of the parenchyma also. It was at once strikingly apparent that many of the acini were not filled with the large, light, non-nucleated normal corpuscles, but with that form of small, richly granular, nucleated cells, very susceptible to staining fluids, which are normally confined in a semilunar arrangement to the margin of the acinus, and which (according to Heidenhain completely fill up the alveoli when the glands are irritated. In many alveoli, these small cells were no longer regularly distributed but irregularly crowded together, and showed division of nuclei, whilst some other alveoli appeared to be stuffed with still smaller cells, irregularly distributed, but similar in appearance to the others.' In many of the sections the septa were not found to be much affected, even where the alveoli were packed with granulation-cells: and hence he considers that the latter must be directly due to changes in the parenchyma of the glands.

In a second case, the diagnosis was less easy. The seat of the ulceration was the tongue, and many of its characters pointed in equal degree to a diagnosis of syphilis or cancer. The subsequent occurrence of miliary tubercles around it rendered its nature evident, and indicated its similarity to the case previously recorded. On microscopic examination, however, no such similarity was found. In this case, only a dense infiltration of all the neighbouring tissues with a small-celled growth could be demonstrated; neither reticulum, giant-cells, nor anything indicative of tubercle being present. The muscular fibres and glandular tissues of the tongue showed no active changes, but simple degeneration in the infiltrated areas.

A third case presented a strong feature of interest in the fact that the tubercular ulceration was seated at the angle of the mouth, partly invading the mucous membrane of the lip and partly the neighbouring skin. Extending completely round it, however, was a ring of intense hyperæmia; but on the mucous surface the tiny transparent tubercles were clearly defined, whilst in the skin the surface was covered with scales. In his remarks upon these three cases, and especially with reference to the differential diagnosis of the affection, Dr. Finger calls special attention to the acute inflammatory nature of the tubercular form of ulceration, whether in the skin or in the mucous membrane of the mouth.

E. CLIFFORD BEALE, M.B.

ARTICLE 439.

OLLIER ON SUBPERIOSTEAL DISARTICULATIONS.

THE following *résumé* is given at the conclusion of an original memoir by Professor Ollier on subperiosteal disarticulations and amputations (*Revue de Chirurgie*, Nos. 7-12).

1. Amputations practised with a periosteal flap or cuff (*manchette*), though they have not always furnished results differing very much from those of ordinary amputations, are in these days of antiseptic dressings attended with results more conformable to such as surgeons have been led by experiment to expect. They favour immediate union, but in young subjects they are liable in certain regions to result in inconvenient osteophytic formations. In adults, subperiosteal amputation is not likely to cause this unsatisfactory result.

2. Subperiosteal amputation in the continuity of a bone, with preservation of the whole of the periosteal sheath and of the peripheral tissues beyond the limits of the section of the bone, gives rise in young subjects to the formation of an osseous mass, which is very useful for maintaining the length and solidity of the stump.

3. All disarticulations, with the exception of those practised for relapsing neoplastic lesions (osteosarcoma, medullary cancer, &c.), ought to be performed by the subperiosteal method. Traumatic lesions and gun-shot wounds furnish the most favourable conditions for the application of this operative method.

4. These disarticulations are to be practised on the same principles as those by which we are guided in subperiosteal resections. The incisions practised in this latter class of operations will serve in the disarticulation of most of the bones, whether the surgeon amputate after having attempted to perform resection or proceed at once to disarticulate.

5. Subperiosteal disarticulations have great advantages over the older methods of resection, with regard to the performance of the operation. In cases where, for some reason or other, the surgeon cannot have recourse to artificial exsanguination, he can operate with but little loss of blood. The hemorrhage is always less severe than in operations by the older method, in which large flaps are formed and thick masses of soft parts cut through. In stripping away the soft parts from the bone, the surgeon is able to preserve all the elements that are useful for the constitution of a thick, well-padded, and even stump. In infants and young subjects one may obtain, by preserving the periosteum, a new and movable bone in the stump, and thus considerably improve the orthopædic result of the operation.

6. In subperiosteal disarticulations the wounds are limited by a fibrous membrane, which circumscribes the injury and forms a barrier against diffuse inflammations. All other things being equal, they are less dangerous than ordinary amputations, which leave a more extensive and irregular wound, since in subperiosteal disarticulations the flap is formed directly from the muscular mass, and the bone can be carefully dissected out; whilst in the older methods of amputation the muscular spaces are freely opened, and there is a risk of cutting vessels and nerves longitudinally. Moreover, the surgeon, in this latter class of operations, sacrifices healthy tissues which would have served to form part of the stump.

7. Of almost impossible application before the discovery of surgical anaesthesia, in consequence of the time they require and of the pain which they would cause to the patient, subperiosteal disarticulations cannot be met with any objection at the present day, since the question of the duration of an operation has become one of quite secondary importance.

8. In subperiosteal disarticulations, only a bistoury and raspatory are required, and a small knife, which

will be found useful in the last stage of the operation (section of the soft parts). The use of large knives should be abandoned in such operations.

9. Although the longitudinal incisions of subperiosteal resections may serve in a general manner for subperiosteal disarticulations, it will be found advisable to modify these to a slight extent in the latter operations. The bone should be approached in the readiest and most direct way, without any attempt being made, as in resections, to maintain the integrity of the muscles surrounding the articulation.

10. A circular operation is most suitable in performing subperiosteal resection. The wound is less extensive, and the bleeding surface is reduced to the surface of transverse section of the flesh and to the surface of the periosteal sheath.

11. If, as in cases of neoplastic lesions of osseous or periosteal origin, it be found necessary to abstain from performing subperiosteal resection, the surgeon should have recourse to periosteal resection; that is to say, he should, in separating the soft parts from the bone, follow the external aspect of the periosteum. In cases of malignant new growth, the knife should be applied as far as possible from the bone, in order to guard against local relapse.

12. In the majority of subperiosteal disarticulations (shoulder, hip, elbow), it is necessary to attack the joint as speedily as possible, in order to open the capsule and displace the end of the long bone. This having been exposed and stripped of its periosteum, the soft parts are to be completely divided. In other regions (knee) it is better to separate the soft parts in the first place, and to cut the flaps before disarticulating.

W. JOHNSON SMITH.

ARTICLE 440.

SCHWIMMER ON NEUROPATHIC AFFECTIONS OF THE SKIN.

DR. ERNST SCHWIMMER of Buda-Pesth, in a comprehensive work on this subject, records and discusses the most recent advances which a more extended knowledge of the physiology of the nervous system has made in the study of dermatology. Although the parasitic factor in the etiology of skin-disease becomes daily more universally studied and recognised, he shows clearly that a very considerable group of affections exists, which cannot be held to have a parasitic origin, but must be due solely to a nervous cause. Too little stress, he considers, has been hitherto laid on the part played by the sympathetic nervous system in the production of skin-affections. It must be recognised as the regulator and to some extent the motor power which presides over vegetative life; and its influence is exercised by means of the vaso-motor fibres on the one hand, and by the trophic fibres, whose seat must be sought in the medulla and in the sympathetic ganglia, on the other. Neuropathic skin-affections, therefore, he separates into three principal groups:—

(1) vaso-motor affections, which may occur in simple or compound forms; (2) trophic affections; (3) idioneurotic affections. The chief symptom of the first of these is the localised hyperæmia of the skin, the hyperæmic blush. The cause of a general or localised hyperæmia must either be regarded as an irritation of the vaso-dilator fibres, or as an inhibition of the vaso-constrictor fibres. The simple forms of angioneurotic skin-affections, whether due

to central or to peripheral causes, never lead to any disturbance of nutrition.

In the category of compound vaso-motor affections he classes, amongst others, urticaria, the forms of erythema produced by certain drugs, and those which are known to accompany some diseases of the generative organs. The trophic affections he divides into sections as follows:—

1. Affections of the cutis, diffuse, papular, vesicular, vascular, and ulcerative;

2. Affections of the subcutaneous cellular tissue, in which he places œdema and elephantiasis Arabum;

3. Constitutional affections, such as local or general sclerema, atrophy, myxœdema, leprosy, ichthyosis;

4. New growths, neuromata, and neuro-fibromata;

5. Anomalies of pigmentation—excess or deficiency of pigment;

6. Affections of the sweat-glands, hair, and nails.

The class of idioneurotic affections deals chiefly with disturbance of the sensory functions, hyperæsthesia and anaesthesia. Hitherto no definite histological changes have been found to explain them.

In the treatment of the various neuropathic skin-affections, he assigns a prominent place to electricity, and especially the constant current. The merits of atropin, pilocarpin, ergotin, and arsenic are also discussed.

The work deals with all these various points in much detail, and is rendered interesting by the clearness of its style, no less than by the numerous original and foreign observations which have been collated. Without desiring to found a new system of dermatology, the author has done good service in bringing together and discussing so complete a summary of modern views upon this subject.

E. CLIFFORD BEALE, M.B.

ARTICLE 441.

ROE ON INTERNAL ŒSOPHAGOTOMY.

INTERNAL Œsophagotomy is an operation that would appear to deserve more attention than it has hitherto received. Like internal urethrotomy, the class of cases for which it is suitable is no doubt limited; but in suitable cases, judging from the few operations that have as yet been performed, it contrasts favourably both with external Œsophagotomy and with gastrostomy. Dr. Roe has recently operated twice in this way, and in a very interesting paper in the *New York Medical Record* (Nov. 11 and 18, 1882) collects the hitherto published cases, which, including his own, amount to only fifteen. Eight of these were performed in France, three in Germany, one in Denmark, one in England, and two in the United States. In these fifteen cases there have been nine recoveries and six deaths; but in only two of these does death appear to have been the direct result of the operation (Czerny's and Mackenzie's); and in these the walls of the Œsophagus were penetrated and cut through too deeply. Of the four other cases of death, two were caused by peritonitis; which was, however, shown at the necropsy to have no connection with the operation. Of the remaining two (Schiltz's), in one a lower and tighter stricture was not divided, to which the patient ultimately succumbed; and in the other the stricture was of a cancerous nature, and the benefit therefore only temporary.

The operation resembles internal urethrotomy,

and is performed with an instrument essentially an urethrotome, modified and adapted to the œsophagus. The first operators used an œsophagotome with two blades; the recent ones (including Dr. Roe) an instrument with a single blade only. The stricture has been divided both from above downwards, and from below upwards, the latter method appearing to be preferable. Before operating, the œsophagus should be thoroughly explored; and the situation, extent, and character of the stricture, if possible, determined. For estimating the situation and length of the stricture, the author has invented 'a set of metallic bulbs mounted on a gum elastic stem. These he finds of advantage in some cases on account of their weight, as they will drop down the œsophagus by their own gravity; and, having a very flexible stem, will sometimes indicate the condition and location of a stricture more accurately than a light ball mounted on a whalebone stem, which is necessarily more or less rigid. For determining the side on which a stricture is located, or is deepest, he employs an olive which he has made with the bulb entirely on one side. At the upper end of the handle is an indicator, to show the side towards which the bulb is directed when introduced into the œsophagus. By passing the instrument gently up and down, each time turning it partly round, the side on which it meets the greatest resistance will be indicated as the side on which the stricture is deepest. The length of the stricture is measured and marked on the stem of the œsophagotome, taking the upper incisor teeth as the point from which to measure. These points having been determined, the œsophagotome is introduced until the upper mark on the stem indicates that the blade has passed through the stricture. The blade is now thrown out, and the instrument drawn back until the second mark shows that the blade has cut through the stricture. The blade is then drawn in, and the instrument withdrawn.' If the stricture be found to be deeper on one side, the blade is turned to that side. To avoid complete division of the œsophageal walls, two or three shallow incisions in different situations are to be preferred to a single deep one. In one of the author's cases, he made as many as six. For the first few days, the patient should be fed entirely by the rectum. Dilatation may begin the day following the operation, the size of the bougie being increased until the full dimension of the œsophagus is reached; and, as in stricture of the urethra, it is advisable to pass a bougie occasionally to prevent recontraction. The attendant complications and dangers that have hitherto been noted are the following:—complete division of the wall of the œsophagus, hæmorrhage, pneumonia, dyspnoea, emphysema, œsophagitis. The worst of these is penetration of the walls, and consequent escape of blood and other substances into the surrounding parts, leading to the formation of peri-œsophageal, mediastinal and pleural abscesses. Hæmorrhage, although usually slight, in two cases was the cause of much anxiety for a time, and appeared to be the result of too deep an incision.

The operation is contra-indicated in all cases where the walls of the stricture are atrophied or contracted, so as to greatly reduce the external circumference of the œsophagus; or where the narrowing of the tube is produced by diseased conditions located in the walls or by pressure from without. It is especially contra-indicated in malignant disease. It should, of course, only be resorted to where

patient dilatation with the sound has failed, and should never be attempted if a sound cannot be passed through the stricture. The class of cases in which it is especially suitable are those in which the stricture is composed of tissue of so elastic a nature that, while it can be dilated up to a certain point, it quickly contracts to its former calibre. This condition of the stricture was found in both of the patients on whom Dr. Roe operated. The first, a woman aged 24, had suffered from dysphagia for upwards of seven years, no cause for the stricture being discoverable. The second was a boy aged 8, and in him the stricture was the result of swallowing a caustic liquid. In both patients, dilatation with œsophageal sounds had failed. In the first patient, the stricture was situated three inches from the commencement of the œsophagus, and was about half-an-inch in length. A sacular dilatation existed immediately above it. A single incision was made through it posteriorly, after which a bougie, No. 18 English size, could be readily passed. The stricture retracted, and in a month's time had to be re-divided by making two incisions, one on each side of the former, but not quite so deep. The stricture now appeared to yield entirely, and in three or four days was dilated to the full size of the œsophagus, and the patient began to take solid food. In the second case, the stricture was situated at the lower part of the tube. A shallow incision was made through the posterior wall, and repeated at intervals of four or five days, until six in all had been made. The opening, says Dr. Roe, is now permanently free, admitting a bougie 15 millimètres in diameter, and swallowing is unobstructed.

W. J. WALSHAM.

ARTICLE 442.

DE WECKER AND MOURA BRAZIL ON THE USE OF JEQUIRY IN EYE-DISEASES.

THIS remedy was first brought before European practitioners by De Wecker in the *Annales d'Oculistique* for July-August 1882. The seeds of the jequirity plant, the *Abrus precatorius*, have been since a long time employed by the natives in some parts of Brazil in ocular affections. This method of treatment was first made known to De Wecker by one of his old patients, who, subsequently to his return home to Brazil from Paris, suffered a fresh outbreak of granular conjunctivitis, from which he was much relieved by the use of this drug.

The directions given were to soak for twenty-four hours 32 grains of the powdered seeds in 1,000 grammes of water. The patient bathes his eyes with the filtered product thrice daily for three days, at the end of which time he has become the subject of a severe conjunctivitis, which may be either purulent or more allied to the diphtheritic form. By the fifteenth day the inflammation ceases, and the granulations are found to be much diminished in size, or even destroyed.

The same author presents in the *Annales d'Oculistique* for November-December 1882 an article on the ophthalmia produced by jequirity.

From numerous experiments he draws the following conclusions. 1. Without doubt, jequirity produces a purulent or even diphtheritic conjunctivitis, whose intensity can be readily regulated by the strength of the solution employed and the number of its applications. The strength may be anything

between that given in the paper just referred to, and 10 grammes in 500 grammes of cold water. 2. The cornea runs no risk during the use of this remedy. It is true that in one case he has seen it suffer slightly and temporarily, but this was only when the applications had been pushed to such an extent that a membrane of the true diphtheritic appearance was produced. 3. The ophthalmia of jequirity cures granulations rapidly, and it is less unpleasant and less dangerous than that produced by the intentional inoculation of blennorrhoeic matter.

He thinks that the ophthalmia of jequirity, which subsides spontaneously after eight to twelve days, can only be effectively produced while the patient resides within the walls of a hospital. Its curative effect on granulations and on corneal opacities goes on for a very considerable period subsequent to the inoculation.

In the same number Dr. Moura Brazil, of Rio de Janeiro, discusses the treatment of granular conjunctivitis by jequirity. It appears that as early as 1867 Dr. Castro y Silva, of Ceara, published a memoir in which he speaks of the dangers attendant on the injudicious use of jequirity, so that it must even then have been well known in some districts of Brazil. The mode of preparation appears to have been as follows. The ripe seeds were soaked in cold water in the proportion of 1 to 700 for two or three days, or in boiling water for a few hours. Afterwards the embryos alone were picked out, reduced to fine powder, and then macerated for twenty-four hours. The infusion was finally filtered, and applied thrice daily between the lids for three days.

Dr. Moura Brazil records his own experiments on rabbits, which certainly show that under certain circumstances the inflammation may become violent and even quite uncontrollable. An infusion of the seeds in the proportion of one to twenty produced a severe diphtheritic conjunctivitis, followed, notwithstanding all treatment, by destruction of the cornea and suppurative panophthalmitis. Using the radicle and gemmule without the cotyledons, he found the inflammation less intense, though still beyond what he wished. In his treatment of patients with granular lids he has used it with great advantage at all stages of this affection, using the seeds freed from their covering and from the radicle and gemmule, in the proportion of one in twenty. He is clear in strongly recommending its use as beneficial in all stages of granular ophthalmia, and as infinitely superior to inoculation with blennorrhoeic matter.

W. A. BAILEY, M.D.

ARTICLE 443.

WEISS ON SPASTIC PARAPLEGIA.

DR. N. WEISS, of Vienna, says (*Nouvelles Medecines*, *Hoehenschrift*, Feb. 17 and 24, 1883) that spastic paraplegia is the name given by Erb to Charcot's 'tabes spasmodique.' According to both authors, it is a primary disease of the spinal cord, and presents the following symptoms.

In the early stage there is a paralytic condition of one or both legs, followed by a hypertonic condition of the affected muscles, producing eventually contractions and great rigidity, especially of the adductors and extensors. The tendon-reflexes are much exaggerated in these muscles, the knee-phenomenon being occasionally produced in both

legs by tapping one ligamentum patellæ. In extreme cases forced flexion of the foot produces a peculiar tremor of the muscles of the extremity. The tremor arises at times without evident cause, and frequently accompanies any movement of the patient. The gait is peculiar, and has been described by Erb under the name of the spastic gait.

These positive symptoms are not conclusive, unless accompanied by the following negative symptoms. Sensations, objective and subjective, are not affected; there is usually no affection of the bladder or rectum; the involved muscles do not become atrophied; there is no lesion of the skin, &c.; and, finally, no signs of cerebral affection.

The disease is very slow, lasting for years, or even decades, without threatening life. The anatomical lesion is considered to be a sclerosis of the crossed pyramidal tract.

This view is grounded on a case of Charcot's of a woman suffering from hysteria who presented the above symptoms. On *post mortem* examination, there was found a sclerosis of the postero-lateral columns. It is also supported by the fact of the occurrence of these symptoms in cases of degeneration of the lateral columns, secondary to cerebral hemiplegia or myelitis; also by the symptoms of amyotrophic lateral sclerosis.

Since Charcot's publication, several cases have been brought forward as examples of this disease. The first was by Charcot himself; and in this case there was shown after death to be not a lateral sclerosis but multiple cerebro-spinal sclerosis, viz., in the crura cerebri and in medulla oblongata, in the cervical, lateral, and posterior columns, and in the dorsal lateral columns.

In 1877 Professor Stoffella, of Vienna, brought forward the case of a woman, aged 78, who had suffered for a long time with the above-mentioned symptoms. Professor Klob found after death a sclerosis affecting the whole cord, but especially the lateral and posterior columns. In this case the cord was not thoroughly examined with the microscope, and the brain was not examined at all.

In the same year Leyden published a series of cases all presenting the above symptoms, and found *post mortem* to present a variety of lesion, but none of them simple lateral sclerosis.

Three similar cases were described in 1879 by R. Schultz, none of them presenting the expected lesion. He concluded that up to that time no case of primary lateral sclerosis had been published, and that spastic symptoms might be produced by functional irritation of the lateral columns without anatomical lesion. In 1880, the same author published two more cases which at first presented symptoms of spastic paraplegia, but which afterwards developed symptoms respectively of pachymeningitis and transverse myelitis.

In the same year, Aufrecht published a case in which during life there had been at first spastic symptoms, and, later, affections of the sphincters without any sensory disturbances. After death, the lumbar lateral columns showed grey degeneration in their posterior half, the dorsal lateral columns were wholly degenerated, while the cervical lateral columns were unaffected. In the lumbar portions of the cord the anterior columns were altered in places, and the anterior columns presented but few ganglion cells.

In 1881, Morgan and Dreschfeld published the first case in which a primary lateral sclerosis had

ever been found after death. The case was of two years' standing, and presented symmetrical lesion in both lateral columns, especially in the dorsal region.

The author brings forward three cases which have come under his notice. In the first case a man, aged 55, had spastic symptoms for nine years, with some slowness of speech, no other nervous symptom. After death, there was found sclerosis of the crossed pyramidal tracts secondary to cerebral lesions. The second case is that of a man, aged 31, who presented spastic symptoms for nine months, followed by symptoms of compression. Caries of the dorsal vertebrae was found after death. In the third case, symptoms of spastic paraplegia existed for ten months, followed by symptoms of disseminated sclerosis.

He concludes that spastic paraplegia does exist, although much more rarely than some authorities would have one believe; and that, in the great majority of cases simulating it, the symptoms are due to a lesion of the lateral columns, which is either secondary or part of a more general lesion, but that in a few cases they are produced by a purely functional disturbance of these columns.

HERBERT MILTON.

ARTICLE 444.

BARIÉ ON THE CARDIO-PULMONARY SYMPTOMS CONSEQUENT UPON GASTRO-HEPATIC TROUBLES.

DR. BARIÉ sums up his researches (*Revue de Médecine*, February) as follows.

1. Certain dyspeptic conditions of stomacic, intestinal, or biliary origin react on the cardio-pulmonary apparatus, giving rise to morbid clinical phenomena, which may be grouped into four classes:

a. Cardiac symptoms only, as palpitation or intermittency.

b. Both pulmonary and cardiac symptoms. As regards the former, there is more or less powerful oppression, extending even to orthopnea, with impending suffocation, which supervenes almost immediately after food, and ceases when digestion is accomplished; to reappear, however, after the next meal. As regards the latter, there is right cardiac dilatation, entailing sometimes secondary tricuspid insufficiency, with its clinical consequences. Physical examination reveals a galloping rhythm of the right ventricle and marked accentuation of the pulmonary second sound, due to increased arterial tension in the pulmonary circulation. During the attack of dyspnea, moreover, the pulse is small, soft, and compressible; there are cyanosis and coldness of the face and extremities, dilatation of the pupil, and at times some hæmoptysis.

c. Symptoms akin to angina pectoris.

d. In the last class, the symptoms are less marked. There is some slight panting after meals, with accentuation of the pulmonary second sound, but without discoverable cardiac dilatation.

These forms may occur separately, or run more or less into one another.

2. These phenomena result from reflex irritation, which, starting from the digestive tract (stomach, intestine, or biliary canals), is reflected to the lungs, whose capillaries are kept in a state of spasmodic contraction; the tension is suddenly increased throughout the pulmonary system, and the right ventricle, compelled to struggle against this obstacle, at first becomes dilated and then hypertrophied.

3. Experimental physiology would appear to demonstrate that these reflex phenomena are entirely under the control of the sympathetic system; but clinical experience nevertheless shows that the pneumogastric has at least some share in the centripetal transmission of impulses from the stomach or biliary passages to the reflex centre.

4. Cardio-pulmonary phenomena are observed only as consecutive upon the lighter affections of the digestive tract (catarrh of the stomach or bile-ducts, calculi, &c.); they are not met with in affections which disorganise the tissues, as diffused chronic inflammation or organic degeneration.

5. The phenomena principally occur in nervous and highly impressionable people, and in women rather than in men. The predisposing causes are neurotic, chlorotic, and hysterical temperaments.

6. The dyspeptic conditions principally associated with cardio-pulmonary troubles are—in the stomach, simple catarrh, and the dyspepsia consequent upon tubercular, renal, uterine, or cardiac affections; in the liver, catarrhal jaundice, biliary calculi, &c.

7. Generally, the prognosis is not grave, but those whose dietetic regimen is bad are subject to recurrent attacks. When, however, the exciting cause (arrest of a calculus in the common bile-duct, for instance) persists long enough to give rise to extreme dilatation of the right ventricle, tricuspid insufficiency may result, whence the patient may succumb to cardiac syncope.

8. A milk-diet is the only efficient remedy. Its effect in cases of gastric origin is marvellous; though, in those consequent upon hepatic trouble, its action is mediocre and uncertain.

K. W. MILLICAN.

ARTICLE 445.

VOLTOLINI ON TWO PECULIAR AFFECTIONS OF THE EAR.

IN the January number of the *Monatsschr. für Ohrenheilkunde*, Professor Voltolini describes two cases which may have interest for aural surgeons.

Case I.—A woman, 20 years of age, complained of a 'clapping' in both ears. At first this occurred only when she yawned, but soon accompanied the slightest motion on her part, such as speaking, or eating, and sometimes came on apart from any movement by the patient. This had continued for five or six years in the one ear, and from two to three years in both. She had consulted a surgeon, whose treatment by Politzer's method made her worse.

Professor Voltolini found that, when the clapping was present in the worse ear—the left—the whole posterior segment of the otherwise clear, but very thin, atrophic membrane was driven out, and in this sac-like protuberance there were many bladder-like points, somewhat like the foam of stale beer, when no connecting white froth is present. When the patient rarified the air in the cavity, the atrophic sac fell back against the wall of the labyrinth, and the noise ceased. On the slightest movement of the 'chewing organ,' such as opening the mouth, eating, &c., the noise returned, and the atrophic membrane was again blown out.

In the right ear, of which the patient did not complain so much, the posterior segment of the membrana tympani was dark blood-red, but not so atrophic as in the left. When this segment was distended outwards, the 'clapping' commenced.

The middle of the membrane was whitish-yellow, as when pus is behind it. In the dark-red portion small bubbles appeared. When the patient swallowed, the membrane at the moment of swallowing was seen to sink inwards, and the noise ceased.

The diagnosis made was dilatation of the Eustachian tube; which had gradually caused the atrophy and vaulting of the membrane, and therewith exudation in the cavity. The rhinoscope did not support this diagnosis, as the lips of the tube seemed more closed from above downwards than in the normal condition; but the easy passage of a 'D' sized catgut through the tube confirmed it.

The treatment consisted in slitting the left membrane, and by the air-douche emptying the cavity. This caused the symptoms at once to disappear. The explanation of the increase of the affection by Politzer's method was also clear.

In two days the patient returned, complaining of the recurrence of the noise. Professor Voltolini found that the incision in the membrane had almost closed, but was still pervious to the air-douche. He enlarged the incision, and drove air through it without causing a cessation of the clapping. Wishing to re-examine the conditions of the pharynx by the rhinoscope, he syringed cold water through the nose for the purpose of cleansing the parts, and was astonished to see the water pour from the left meatus. Examining the ear, he found that, even with the large artificial perforation present, the posterior segment was bulged outwards with each expiration, and fell back with each inspiration, in the act of swallowing and by the negative Valsalva's experiment. With the pronunciation of each vowel, the membrane made a small yet distinct excursion. With the articulation of *r*, it had a tremulous vibrating motion so long as it was expressed. In twenty-four hours the incision was closed, and the excursions were more limited, showing that the tension had been increased by the formation of the cicatrix. The right ear was incised in the same way, and with the same result.

Within a fortnight the symptoms returned, and the appearances and movements of the membranes were much the same, but in a less degree. A large perforation was made in the left membrane by means of the galvano-cautery. There was considerable discharge thereafter, but little reaction, and the patient went home to wait the cicatrization. In twenty-one days the cicatrix was fully formed, but the noises had not entirely disappeared. Professor Voltolini determined to attempt the establishment of an opening behind the first cicatrix by means of the cautery. This was done, and as the patient had not appeared up to January, he concludes that she is contented with the result; but he promises further information when she appears.

The narrator considers that the above case affords a proof of what he has formerly affirmed, the free communication of the air in the tympanic cavity with that in the mouth.

[We hope to hear the results of the above case, should Professor Voltolini have the opportunity of obtaining them.—*Rep.*]

Case II.—The second case is one of those of inflammation of the tympanic membrane, accompanied by sensations similar to those which might be produced by an animal in the ear. As the observer saw no animal, but believed that he had discovered an exudation behind the membrane, he perforated it. The operation did not give exit to any exudation, but

the sensations disappeared with the aid of the air-douche in a few days.

Professor Voltolini considers that the sensations spoken of in this case arose from inflammation of the membrane, or from certain conditions of tension of that organ.

W. LAIDLAW PURVES.

ARTICLE 446.

DIANIN ON TRICHLORPHENOL AS AN ANTISEPTIC.

TRICHLORPHENOL was discovered in 1836 by A. Laurent, and its chemical properties have been afterwards studied by A. Hoffmann, Piria, M. Vogel, A. Faust, and F. Sinteris. This body is represented by the formula $C_6H_2Cl_3OH$; in other words, it is phenol, in which H_3 is replaced by Cl_3 . Trichlorphenol is easily soluble in alcohol, ether, and bisulphuretted carbon, but with difficulty in water (only 1 in 116), its solutions being of acid reaction. It crystallises in fine silky needles, melting at 67 or 68° Cent., and with bases forms salt-like bodies of constant composition, of which are as yet known those of ammonium, potassium, magnesium, calcium, barium, lead, and silver. Dr. V. Dianin (*St. Petersburg. Inaug. Dissertation*, 1882) prepares trichlorphenol by a new method of his own, which, in rough outlines, consists in gradual addition of a saturated solution of chlorinated lime to a saturated solution of carbolic acid; the filtrate contains trichlorphenate of calcium kept in solution by chloride of calcium. The voluminous colourless precipitate obtained in this liquid from the addition of hydrochloric acid is pure trichlorphenol. For his experiments carried out at Professor A. P. Borodin's laboratory and at Professor P. P. Pelechin's clinic, the author used trichlorphenol either in substance, or in 5 per cent. alcohol and glycerine solution (*R*. Trichlorphenol, 3v., *Spir. vini* q.s. ad solutionem, *Glycerini* lb. j.), or in the shape of lime-salt, the preparation of which is extremely easy. (*R*. Solut. acidi carbolicus (4 per cent.) lb. j., solut. chlorat. calcis lb. v. Mix and filter). The fluid received represents nearly one per cent. solution of trichlorphenate of lime, and may be safely used for all clinical purposes, or, if desirable, may be diluted with boiled water to the degree required. From his studies, the author arrives at the following conclusions. 1. Trichlorphenol possesses antiseptic properties which are about twenty-five times greater than those of carbolic acid. 2. Weak solutions of trichlorphenol or its salts (0.02 per cent.) completely check the alcoholic fermentation. A marked retardation of the latter is caused already by 0.006 per cent. solutions. The alkaline decomposition of urine is arrested by 0.25 per cent. solutions. 3. In cases of extensive gangrenous processes, as well as in those complicated by hospital gangrene, trichlorphenol acts as a powerful antiseptic remedy, which far excels phenol, thymol, salicylic acid, chlorinated lime, manganese salts, &c. 4. At the same time, trichlorphenol is a powerful deodoriser. 5. It produces no irritating effect on the tissues, even when used in a strong solution; in substance, it displays a mild cauterising action on wounded and ulcerated surfaces.

To prove and illustrate these assertions, the author furnishes details of eighteen well-selected cases of his own. In addition, he mentions the excellent results obtained by Dr. N. G. Rubetz in five cases of phagedænic chancres by the application (thrice a

day) of a 2.5 per cent. glycerine solution of trichlorophenol. In all the cases, the ulcers lost their phagedænic appearance by the fifth day of treatment.

V. IDELSON, M.D.

SURGERY.

RECENT PAPERS.

447. THOMPSON.—Drainage in Chronic Cystitis and Confirmed Prostatic Retention of Urine. (*Brit. Med. Jour.*, Dec. 1882, p. 1131.)

448. TEEVAN.—Sir Henry Thompson's Operation for some cases of Retention. (*Brit. Med. Jour.*, Jan. 1883, p. 132.)

449. SANCTUARY.—Sponge-grafting. (*Brit. Med. Jour.*, Dec. 1882, p. 1202.)

450. BLANC.—Trephining in Depressed Fracture of the Skull. (*Lancet*, Dec. 1812, p. 1023.)

451. GOLDSMITH.—Recovery from a Fish-hook in the Oesophagus. (*Lancet*, Nov. 1882, p. 745.)

452. WELLS.—Mesenteric Cysts and Tumours. (*Brit. Med. Jour.*, Dec. 1882, p. 1138.)

453. BARKER.—Compound Fracture of the Femur and Amputation of the Thigh. (*Brit. Med. Jour.*, Jan. 1883, p. 100.)

454. MAY.—Injury and Obstruction to the Ureter. (*Ibid.*, Jan. 1883, p. 108.)

455. WOOD.—Hysterical Breast. (*Med. Times and Gazette*, Jan. 1883, p. 76.)

456. WHITSON.—The Radical Cure of Inguinal Hernia. (*Ibid.*, Jan. 1883, p. 91.)

457. THORNTON.—Two Cases of Hepatotomy for Hydatids. (*Med. Times and Gazette*, Jan. 1883, p. 89.)

458. JACKSON.—Recovery after Rupture of the Bladder. (*Ibid.*, Feb. 1883, p. 231.)

459. OLIVER.—The Illumination of Internal Cavities by Means of the Electric Light. (*Ibid.*, Jan. 1883, p. 152.)

460. GOLDIE.—Ankylosis of the Hip-Joint treated by Section of the Femur. (*Ibid.*, Jan. 1883, p. 155.)

461. QUÉNU.—Nephrectomy. (*Archiv. Gén. de Méd.*, No. 12, 1882.)

462. ASHHURST.—Avulsion of an Enlarged Lobe of the Prostate. (*Philadelphia Med. Times*, Dec. 2, 1882.)

463. VERNEUIL.—The Treatment of Fistula in Ano. (*Société de Chir.*)

464. PETERS.—Litholapaxy through the Perineum. (*Annals of Anat. and Surg.*, No. 1, 1883.)

465. VOLKMAN, RICHARD.—Attempt at an Operative Treatment of Ozena Fœtida Simplex. (*Centralbl. für Chirurgie*, 1882, No. 5, and *Mediz.-Chirurg. Rundschau*.)

466. MICHAEL.—An Instrument for Treating Strictures of the Pharynx. (*Illustrirte Monatsschr. der ärztlichen Polytechnik*, March 1882; and *Annales des Malad. de l'Oreille, du Larynx, &c.*, Sept. 1882.)

467. DIAGONOFF, P. T.—On a Case of Foreign Body in the Nasal Cavity. (*Pract.*, 1882, No. 18, p. 290.)

468. ALLIS.—The Cure of Hip-Joint Disease. (*Philad. Med. Times*, Dec. 1882.)

469. JOHNSTON.—Forty Inches of Bowel passed per Rectum: Recovery. (*Maryland Med. Jour.*)

470. BYRD.—Treatment of Fracture of the Clavicle. (*Med. News.*)

471. CONKLIN.—Impacted Fracture of the Neck of the Femur, with Invasion of the Foot. (*Columbus Med. Jour.*, Nov. 1882.)

472. LEISTIKOFF.—Injections of Corrosive Sublimate in Gonorrhœa. (*Deutsche Med. Zeit.*, Sept. 7, 1882.)

ART. 447. *Thompson on Drainage in Chronic Cystitis and Confirmed Prostatic Retention of Urine.* Sir Henry Thompson in the *Brit. Med. Jour.*, Dec. 1882, p. 1131, gives some notes on a mode of

affording permanent relief to intractable chronic cystitis and to confirmed prostatic retention of urine. It is in those cases in which the patient, having for years relied entirely on the use of a catheter for the removal of all his urine, finds the bladder becoming so intolerant of its contents, that the act of catheterism has to be repeated about every hour, that Sir Henry Thompson has performed the following operation. The patient is placed in the lithotomy position, under ether, a grooved median staff is passed into the bladder, and a vertical incision is made just above the anus, large enough only to admit the index finger—the incision to terminate in the staff at the membranous portion of the urethra. A No. 20 (English scale) vulcanised catheter, with its extremity just in the bladder, is inserted in the wound and fastened by tapes; this is retained for several days, and the bladder has a complete rest. By this means the bladder can be explored, so that its condition and contents can be thoroughly ascertained.

448. *Teevan on Sir H. Thompson's New Operation for Some Cases of Retention.*—In the *Brit. Med. Jour.*, Jan. 1883, p. 132, Mr. W. F. Teevan gives the following extracts from one of his Lettoman lectures, delivered in 1880, when explaining his views of treatment in such cases as those described by Sir Henry Thompson. 'I think incisions of lateral lithotomy are unnecessarily severe for the purpose, which can be equally attained by external urethrotomy, with which operation I have contented myself and allowed all the urine to run away through a soft tube. . . . the object being to treat the bladder as a suppurating sore and give it physiological rest. . . . It is wonderful to see the immediate relief which such an operation affords. . . . I consider [that, whenever auto-catheterism is becoming increasingly difficult and frequent, the time for action has arrived.' (*Vide Lancet*, April 1880, p. 593.) Sir Henry Thompson's reply to Mr. Teevan is to be found at p. 182 of the journal, and there he emphatically denies that the two operations have anything in common.

449. *Sanctuary on Sponge-grafting.*—Dr. Sanctuary, in the *Brit. Med. Jour.*, Dec. 1882, p. 1202, records three cases in which he has tried sponge-grafting with success. In one case, the wound was on the under surface of the penis, and healed in ten days; the other cases were wounds of the fingers, and healed in about three weeks. In order to obtain good results from sponge-grafting it is necessary to use the finest Turkey sponge, and to apply firm pressure. Dr. Sanctuary remarks that in two sets of cases there is adhesion of sponge where it is not intended; (1) When bleeding cavities are stuffed with sponge, as in excision of the eyeball; (2) Where sponge-tents have been used to dilate the cervix uteri, and have been left in longer than usual. Mr. James Ferguson, of Perth, proposes a modification by using the sponge only for a few days until the surface is granulating healthily.

450. *Blanc on Trephining in Depressed Fracture of the Skull.*—Dr. Blanc, in the *Lancet*, Dec. 1882, p. 1023, gives the notes of three cases of depressed fracture of the skull in which he trephined with success. The first case was depressed fracture of the frontal bone, with slight contusion of the brain. Seven days after the accident the patient was suddenly seized with progressive facial paralysis, dyspnoea, &c. These symptoms led him to trephine, and to remove the fragments of the bone. The

success was marked. The second case was one in which a wedge-shaped piece of bone got under the parietal bone, and caused compression of the brain with paralysis, which passed off soon after removing the fragment. The third case is one where there was severe concussion of the brain, with laceration and contusion of the meninges, which assumed a serious aspect until the fragments were removed.

451. *Goldsmith on Recovery from a Fish-hook in the Oesophagus*.—Dr. Goldsmith in the *Lancet*, Nov. 1882, p. 745, reports the case of a lad, aged 10, who was admitted into the Bradford infirmary eleven hours after having swallowed a fish-hook. He suffered only from pain over the episternal notch; there was a piece of catgut protruding from the mouth. The patient being under chloroform, a piece of silk ligature was tied to the end of the gut, and a fine wire to the end of the silk, and a full-sized oesophageal bougie directed thereby to the bend of the hook; here slight resistance was felt, but was easily overcome by pressure; the bougie and hook were carefully withdrawn with little or no trouble. The hook proved to be a No. 6 perch, and the gut was nine and a half inches long.

452. *Wells on Mesenteric Cysts and Tumours*.—Mr. Spencer Wells, in the *Brit. Med. Jour.*, Dec. 1882, p. 1138, notes how rarely one meets with cases of mesenteric cysts or tumours, and mentions two cases which he has lately seen; in one case an operation was performed and the exact situation of the tumour thus ascertained. The tumour was solid, and had its origin in the cellular tissue at the root of the mesentery proper, near the lumbar vertebrae. The operation was done under antiseptics, and the patient made a rapid recovery. The nature of the tumour had not been ascertained when Mr. Wells communicated his notes.—[In the *Medical Digest*, Section 1001: 5, a case by M. Tillaux, where excision was performed, is noted. *Ref.*]

453. *Barker on a Case of Compound Fracture of the Femur and Amputation of the Thigh*.—Mr. A. Barker, in the *Brit. Med. Jour.*, Jan. 1883, p. 100, gives the notes of a case of a man, aged 29, who fell from a roof and received a compound fracture of the femur a little below its middle. The limb was dressed according to Listerian principles, and placed on a bracketed splint. About ten days after the accident the temperature rose to 103° , and the patient vomited frequently; pus also was found in the wound, and counter-openings had to be made. Carboloria was also present; dressings of boracic acid and oakum were therefore applied. About a month after the accident erysipelas set in, and in a few days several pyæmic abscesses were discovered in various parts of the body, the most serious one being in the right elbow-joint. Ten weeks elapsed, and the patient was gradually sinking from prolonged and profuse discharge. Mr. Barker then decided to amputate the limb a little above the middle. The operation was hindered several times owing to the weak condition of the patient, but with the help of stimulants the pulse was maintained in a fair condition. The stump was dressed with lint dipped in carbolic oil overlaid with salicylic wool, and progressed favourably for some weeks; but, after four months from the commencement of treatment, Mr. Barker detected another comminuted fracture higher up, and determined to remove the remainder of the shaft of the femur by enlarging a wound which existed on the outer side of the thigh, thus enabling him to exarticulate at the hip-joint, removing the

remaining portion of shaft through the wound, without producing much shock to the weakened condition of the patient. After this operation the patient rapidly improved, and left the hospital at the end of six months walking on crutches. He is now fat and healthy-looking, and has a long boneless stump which gives him no trouble. His right elbow is completely ankylosed.

454. *May on a Case of Injury and Obstruction to the Ureter*.—Mr. Bennett May, in the *Brit. Med. Jour.* of Jan. 1883, p. 108, gives the notes of a case of injury to the kidney. A man, aged 24, was admitted into hospital, having been found in a drunken state, and complaining that he had been kicked about the body. He complained of great pain in the lower part of the abdomen, and on the second day after admission he strained a great deal to pass urine, but was unable to do so. A catheter was passed, and about twenty ounces of nearly pure blood were drawn off. After this, he passed blood and urine without the use of the catheter. On the fourth day, the patient was suddenly seized with intense pain in the left side, and after this the urine was free from blood. The left flank was dull to percussion, and some fullness was noticed. On the seventh day, another paroxysm of pain came on, resembling that due to renal calculus, and Mr. May believed that the ureter of the left kidney was blocked by a clot of blood. He accordingly had the patient put under chloroform, and introduced a long fine needle at the outer edge of the erector spinae, in a direction upwards and outwards through the substance of the kidney, and aimed for the pelvis. He succeeded in drawing off nearly seven ounces of blood and urinous fluid, identical to that which had been removed from the bladder the day after the accident. The patient was quite easy after this operation, and passed urine freely, which was blood-stained. For the next few days, the urine became less blood-stained, and all traces of blood disappeared altogether by the twelfth day, the patient leaving the hospital apparently well on the seventeenth day. Some weeks afterwards, Mr. May learnt that the man was an inmate of another hospital, and he was permitted to examine him there. He found a hard indurated swelling deep in the left iliac fossa, and the thigh on that side was flexed on to the abdomen, thus showing that the obstruction to the urine had been caused by the ureter having been torn, and bloody urine having been extravasated into the surrounding tissues, thus causing pressure on the ureter, which was relieved by tapping.

455. *Wood on Hysterical Breast*.—In the *Med. Times and Gazette*, Jan. 1883, p. 76, there is an abstract of a lecture by Prof. H. C. Wood. Reference is made to a case (a woman, aged 24) where there had been some talk of amputating the breast for tumour, whereas the enlargement was due to a neurotic affection. Cases of neurotic breast are usually quite amenable to treatment. In many cases a galvanic current will rapidly bring relief. At the same time, general treatment is necessary, paying special attention to any disorder of the intestinal tract. The surgeon should not try to treat the debility with tonics, but by finding out the cause of the debility, and remove it.

456. *Whitson on the Radical Cure of Inguinal Hernia*.—Dr. J. Whitson, in the *Med. Times and Gazette*, Jan. 1883, p. 91, gives the notes of an operation he performed for the cure of inguinal hernia. A fold of skin over the inguinal ring was transfixed,

and a cut made outwards; the various structures over the mouth of the canal were then divided on a director, until the sac was reached, when it was opened, and a large portion of it removed. Wood's needle, threaded with the strongest chromicised catgut, was then passed through the upper and outer sides of the ring, carried over towards the inner pillar; and, when brought into contact with the skin on that side, the latter was pulled away in the direction of the mesian line, so as to permit the exit of the point of the needle at the opening already made. Three separate sutures were thus applied, and the pillars of the ring were then firmly approximated by tightening the sutures; the cut edges of the sac also being carefully stitched together with catgut. The margins of the wound were brought together with button sutures, and fine catgut stitches, leaving only a small aperture for a drainage-tube. The patient made a rapid recovery, and was dismissed cured about five weeks after the operation.

457. *Thornton on Two Cases of Hepatotomy for Hydatids*.—Mr. Knowsley Thornton, in the *Med. Times and Gazette*, Jan. 1883, p. 89, reports two cases of hydatids of the liver in which he performed hepatotomy. The two cases were similar, in that a tumour appeared in both patients when they were young, which progressed slowly, and was long before it seriously inconvenienced them or affected their general health. But they differed in that in one case several cysts existed, some of which were caused by aspiration, but after the fifth tapping suppuration set in, and the operation was only done to try to save life; the patient, however, dying thirty-one hours after the operation. In the second case, the cyst was single, and free exit was given. No drainage was attempted, and no irritant introduced to cause concretion. The whole cavity contracted in a few weeks, without interfering with the normal action of the liver-tissue. The operation in the second case was conducted under strict Listerism, and demonstrates what nature can do when simply protected from outside interference.

458. *Jackson on Recovery after Rupture of the Bladder*.—In the *Lancet*, Feb. 1883, p. 231, Mr. Vincent Jackson records the case of a man, aged 24, who fell upon the handle of a trolley, such as railway porters use, which tore his trousers and entered the rectum, wounding the bladder. A catheter was tied in, but most of the urine passed by the rectum until the seventh day, when much passed through the catheter, and after fourteen days the whole. [This case illustrates the axiom of Dr. Sims, that abdominal gunshot and other wounds are deprived of most of their danger if the rectum be involved, so that there may be free drainage, and thus much of the risk from septicæmia be avoided.—*Vide Brit. Med. Journal*, Feb. 1882, pp. 223, 261.—*Rep.*]

459. *Oliver on the Illumination of Internal Cavities by means of the Electric Light*.—Dr. Oliver, in the *Brit. Med. Jour.*, Jan. 1883, p. 152, writes showing how, by means of Mr. Payne's improved electric light appliances, he was able to observe the condition of the interior of a hydatid cyst in the liver, after abdominal section had been performed to evacuate the contents of the cyst. A small Swan's lamp was passed down a tube leading into the cavity, and connected with a four-celled Léclanche battery.

460. *Goldie on Ankylosis of the Hip-Joint Treated by Section of the Femur*.—Mr. Goldie, in the *Brit. Med. Jour.*, Jan. 1883, p. 155, gives notes of a case

of a boy who was afflicted with strumous disease of the hip-joint, and was treated for four years by every means possible for improvement in his general health; the result being that at the end of that time this was markedly improved, but the right leg was ankylosed in a most awkward position. Mr. Goldie now decided to perform osteotomy. This was done in February 1882. The femur was fractured below the trochanter major, and the leg straightened; splints were applied, then plaster of Paris; and, in October 1882, the patient was discharged, able to walk and to take part in the sports of his playmates.

RICHARD NEALE, M.D.

461. *Quénu on Nephrectomy*.—In concluding a critical review on nephrectomy (*Arch. Gén. de Méd.*, No. 12, 1882) M. E. Quénu, of Paris, points out that this operation differs from extirpation of the cancerous larynx or uterus in possessing the immense superiority of procuring for the patient, when it is indicated and succeeds, a decided and permanent cure. Questionable, even unjustifiable, in cases of cancer, sarcoma, or tuberculosis of the kidney, nephrectomy forces itself upon the surgeon as the only effective method of treating certain renal or ureteric fistule. This operation is indicated in certain cases of cystic growth of hydronephrosis, of pyonephrosis, and of pyelitis, and of certain injuries to the kidney. It is quite justifiable in cases of floating kidney, when the intensity of the pain renders the patient's life intolerable, or when some special complication due to displacement of the organ creates an imminent danger. With regard to the operation itself, nephrectomy, M. Quénu holds, has been brought almost to perfection. Further studies in connection with this subject should be directed towards perfecting the diagnosis of renal diseases, and laying down with precision the special operative indications in each.

462. *Ashhurst on Amputation of an Enlarged Lobe of the Prostate*.—A case is reported in the *Philadelph. Medical Times*, Dec. 2, 1882, in which Professor Ashhurst, after removal by median lithotomy of a detached portion of a soft French catheter from the bladder of a gentleman, aged 61 years, twisted off with forceps a projecting irregular growth, about the size of the first joint of the thumb, springing from the prostate, and almost completely occluding the internal orifice of the urethra. Notwithstanding free consecutive hæmorrhage, the patient rapidly convalesced. On the twenty-fourth day the wound was healed, and the patient was free from pain, able to hold his urine two or three hours at a time, and to urinate in a full stream without the aid of the catheter. The result in this case, Dr. Ashhurst states, was eminently satisfactory. Except for the consecutive bleeding, which, some hours after the operation, necessitated plugging of the wound, the patient had really not a single unfavourable symptom. The operation not only relieved the patient from the immediate source of danger—the detached portion of catheter in the bladder and the consequent cystitis, but effected a radical cure of his long-standing chronic ailment—urinary retention from enlargement of the prostate. It is suggested that a case like this opens a wide field for discussion as to the possible propriety of employing operative measures in advanced examples of prostatic disease, even without the implication of a foreign body or calculus in the bladder. For cases of ordinary hypertrophy, where the use of the catheter is painless and efficient, no doubt an operation would be un-

desirable; but there are some instances of median enlargement in which the suffering is really very great, and in which the ordinary treatment amounts, in fact, to little more than the classical 'meditation upon death,' in which Professor Ashhurst cannot but think that the surgeon would be justified in at least submitting the question of operation to the patient.

463. *Verneuil on the Treatment of Fistula in Ano.*—During a discussion at the Société de Chirurgie in October last on a paper communicated by Dr. Queirel, of Marseilles, M. Verneuil argued that the elastic ligature—though probably suitable in cases of small anal fistula, without diverticula or undermining—had no advantages over the thermo-cautery, by which the division could be rapidly effected. The bistoury, he holds, ought to be abandoned in the treatment of anal fistula, as it exposes the patient to the risks of hæmorrhage and erysipelas. The thermo-cautery never causes primary and is rarely followed by secondary hæmorrhage. In the use of the ligature, the patient is not free from the risk of secondary hæmorrhage. Relapse is to be feared in one or other of two different conditions. Most frequently it occurs as a consequence of an incomplete operation. In phthisical subjects relapse takes place, no matter what method has been employed. With the ligature the operation is likely to be incomplete; for, in order to remove the fistula, it is necessary to follow all its prolongations. If each of these be treated by a ligature, the operation becomes more complicated than an application of the thermo-cautery. One of the disadvantages of the ligature is the pain to which it gives rise. A young woman to whom Verneuil applied a ligature for the treatment of fistula, after three nights of insomnia through intense pain, died ten days later from pneumonia. M. Verneuil thinks that patients as a rule are not able to follow their occupations during the treatment by ligature; besides, he would not under any circumstances permit any patient to move about for some days during such treatment. In a diabetic patient, M. Verneuil would prefer the use of the actual cautery to that of the bistoury or of the ligature. The ligature, it is held, is impracticable in many cases in which the fistula is long and the walls are thick, and when there are many prolongations. It will, of course, be preferred by timid subjects, but in employing the thermo-cautery the surgeon can always use chloroform.

464. *Peters on Litholapaxy through the Perineum.*—The following case was reported by Dr. George A. Peters to the New York Surgical Society in November last (*Ann. of Anat. and Surg.*, No. 1, 1883). The patient was a boy, ten years of age, who had suffered from symptoms of vesical calculus for five years. On examining the bladder with a Thompson's searcher, Dr. Peters readily detected a stone, which was estimated to be of large size, hard, and rough. After the patient had been placed on the table, bimanual examination, with one finger on the rectum and pressure made above the pubes, detected a stone in the bladder: it was then estimated to be about an inch in length. Dr. Peters decided on performing the median operation with some modifications, and through the opening thus made in the urethra to crush and remove the fragments. The modification consisted in making the incision through the skin and soft parts, and then introducing the knife in the usual manner, touching the groove in the staff and dividing the urethra. On the introduction of forceps into the bladder with

the expectation of being able to crush the stone, this was found to be at least 1½ inches in diameter, and the instrument proved too weak to break it. Considerable difficulty was then experienced in removing the forceps from the stone, as the bladder was empty and had contracted firmly. The forceps having been removed, a short lithotrite—made for crushing stone in the female bladder—was introduced; but, after the calculus had been grasped, it was found to be so large that the instrument could not be locked. Bigelow's large lithotrite was then introduced, and the stone was secured and crushed. Several of the large fragments were removed with the forceps, and the operation was completed with the scoop, passing it over every portion of the bladder. On introducing the finger, Dr. Peters found that the irritation produced by the operation had caused hour-glass contraction, and some fragments were shut up in the superior part of the bladder. Finally, however, the cavity was completely emptied. The fragments and detritus collected weighed 470 grains. During the subsequent course of the case, nothing of special importance occurred except a high temperature (105° F.) during the first part of the first twenty-four hours, but this readily yielded. On the seventh day the boy began to pass urine by the penis, and on the tenth day the urine was passed entirely in the normal manner. After this date, the case progressed favourably. Dr. Peters states that, should he again be called upon to operate in a similar case—that of a young bladder containing a large stone—he would perform litholapaxy through the perineum in the following manner. Making an incision in the perineum, he would enter the urethra a little in advance of the seat of ordinary median lithotomy, and by an incision only large enough to admit a lithotrite; then through that opening he would crush the stone and evacuate the fragments, as in ordinary rapid lithotripsy, with Bigelow's apparatus.

W. JOHNSON SMITH.

465. *Volkman on the Operative Treatment of Ozena.*—In 1881 (*Centralbl. für Chirurgie*, 1882, No. 5) the author operated on two cases of simple fœtid ozena, in young girls, by removal of the lower, and the greater part of the middle, turbinated bones. Disinfecting and astringent solutions, which had previously been used for months and years without effect, now caused the penetrating smell to disappear. In both patients the nose was naturally very narrow, the lower meatus being only permeable to very narrow instruments. The nose was at the same time asymmetrical, the vomer being bent and the turbinals nearly occluding the nostrils. In one case there was much velvety swelling and general injection of the nasal mucous membrane with abundant secretion; in the second there was cicatricial contraction with the formation of hard crusts. The method of operating is as follows. A strong concave gouge, of as large a size as possible, is introduced into the nostril, and, with due regard to the direction of the middle meatus, is pushed forcibly onwards by two or three thrusts of the hand, the concavity of the gouge being directed first inwards and then downwards. Any loose pieces of turbinated bone may afterwards be removed with forceps, and plugging be resorted to if there be much hæmorrhage.

466. *Michael on an Instrument for Treating Strictures of the Pharynx.*—Dr. Michael (*Illustrirte Monatsschr. der ärztlichen Polytechnik*, March 1882) in a case of stricture of the lower part of the

pharynx (the result of syphilitic contraction) employed with success a dilator made on the same principle as the three-branched vaginal speculum of Mathieu.

E. CRESSWELL BABER, M.B.

467. *Diakonoff on a Case of Foreign Body in the Nose.*—Dr. P. T. Diakonoff, of Orel, details (*Tratch*, 1882, No. 18, p. 290) the case of a peasant woman, aged 50, from whom he extracted an iron tooth of a threshing-machine, which had been driven into her nasal cavity through the left nasal bone more than four years previously. The foreign body weighed 1,820 grains, and measured $5\frac{1}{2} \times 3 \times 1$ centimetres. It was found partly protruding out of the middle of the hard palate, and was easily removed by a long incision. The palatal process of the left maxillary bone and the left nasal conchæ were absent.

V. IDELSON, M.D.

468. *Allis on the Cure of Hip-Joint Disease.*—Dr. O. H. Allis makes some practical remarks on this subject in the *Philadelphia Med. Times*. An eminent surgeon has said that nine-tenths of the cases can be perfectly cured, if taken in time. Granting this to be true, it is clinical experience that nine-tenths of the cases are not brought to the surgeon in the early stage. Dr. Allis divides every grade of the disease under two heads. In the first, or milder form, the manifestations are not such as to occasion alarm on the part of the patient or friends. There is slight lameness, and active sports, exercise, and vocation are precluded; finally, after months, the patient seeming to get neither better nor worse, the hip presents every evidence of recovery from hip-joint disease, but with fixation of the joint. In the second, or severer type, he includes all cases coming under observation with unmistakable evidence of highly destructive inflammation. The disease requires the most judicious surgical care to arrest it. Slowly but steadily the symptoms subside, health returns, and every evidence of local disturbance disappears, when an examination of the joint shows fixation. Fixation he believes to be Nature's best cure; and the question he asks is: 'Can cases that have passed through the inflammatory stage of hip-disease, in which the disease has been arrested and a cure established through fixation, be further redeemed and a movable joint established?' Clinical teaching answers in the affirmative. His own experience is in the negative. He reports three cases in which he attempted to redeem the hip when Nature had cured by fixation; two resulted in death, and the third patient escaped, but not until he had been dragged to the very verge of the grave by established surgical practice. In the discussion that followed the reading of this paper, Dr. Barton entirely endorsed the position taken by the writer; and Dr. Willard reported three cases in which violent and destructive inflammation had been awakened in long quiescent joints—in one case by an accident, in another by excessive dancing, in another by the surgeon's manipulation. Should the ankylosed position be one unfavourable for locomotion, he would practice osteotomy rather than run the risk of exciting destructive inflammation in a region where the tissues were unhealthy, and where there was really no sound joint-structure remaining.

469. *Johnston on Forty Inches of Bowel passed per Rectum, with Recovery.*—Dr. Christopher Johnston records (*Maryland Med. Jour.*) a case in which forty inches of intestine were passed through the rectum, by a lady. The patient was thirty-two years of age, married, and had one child about four years old;

her health had always been delicate, and she had been subject to indigestion, constipation, and colic pains. The attack during which the bowel was passed began with acute epigastric pain, at first supposed to be due to cramp colic. There had been no action from the bowels for six or seven days, and a circumscribed hardness could be easily felt through the abdominal parietes. After three days, stercoraceous vomiting set in and continued three or four days; it was accompanied by some relief. At the end of the three or four days the sphacelated bowel, together with some of the omentum, was passed, followed by loose operations. Part of the specimen retained its tubular shape and contained feces; another part passed mixed with feces. The prostration during the attack was very great and death seemed imminent. She began to improve slowly and to regain her appetite after the discharge of the bowel, but had still occasional pains in the bowels, especially in connection with her evacuations. Six weeks after the attack she was able to sit up a little, and, though still feeble, was cheerful and expressed herself as feeling very well. The treatment pursued was cathartics, enemata, inflation, anodynes, &c. The notes of the case, as well as the specimen, were sent to Dr. Johnston by Dr. Wm. N. Saunders, under whose care it occurred. The specimen was supposed to be a portion of the ileum. Dr. Johnston has found the following cases of this accident reported. Pollock (*Holmes's Syst. of Surg.*, Vol. iv., p. 165) relates the case of a boy, aged five, sick four months, who passed eight inches of the ileum, the cæcum with the appendix vermiformis, and four inches of colon; also that of a youth, aged 18, sick twenty days, who is said to have passed many portions of intestine with 'skins.' Gross (*Syst. of Surg.*, sixth ed., Vol. ii., p. 623) mentions a case of the late Professor John Dawson, of Columbus, Ohio, a child aged six, who passed twenty-nine inches of colon. Dr. Van Buren saw five feet passed, and Dr. Peaslee the same. In thirty-five cases analysed by Dr. W. Thompson, the invaginated portion (intestine with mesentery) varied from six inches to three feet; of the thirty-five, twenty-two involved the small intestine alone, thirteen the large, or large and small together. The average duration was four or five weeks. All the cases referred to recovered.

470. *Byrd on the Treatment of Fracture of the Clavicle.*—Dr. Harvey L. Byrd, of Baltimore, in the *Medical News*, describes, figures, and advocates a new form of apparatus whereby he claims more certain results in fracture of the clavicle than can be gained by other means. Its object is especially to secure extension and counter-extension of the fragments. The apparatus is composed of two metallic plates, of sufficient size, to cover the scapulae of an adult person. These are connected together by means of a flat steel bar, to which is attached a lever, extending over and fronting the anterior apex of the shoulder, through the distal extremity of which passes a thumbscrew from before backwards, and to the end of which a concave metal plate is attached, with its concavity looking to the anterior apex of the shoulder. This lever is adapted for transference to either shoulder. Screws are used for keeping the several parts in their proper places, and to allow the adjustment of the apparatus to persons of different size. All parts of the instruments that come into contact with the surface of the body of the patient are nicely padded. All the necessary leverage for reducing the fracture and keeping the broken ends

of the bone in apposition, is obtained by means of the two plates in their action upon the inferior angles and dorsa of the scapulae, which serve as fulcra for drawing and keeping the shoulders backwards, and for the attachment of the special lever for action, as necessary, upon the shoulder of the fractured side. Thus the shoulder-straps, attached by buckles to the superior and inferior lateral margins of the plates, may be so adjusted as to meet all the requirements of a majority of cases, without bringing the special lever for the shoulder into requisition at all; and when the ordinary sling is added for the comfortable support of the elbow and forearm, the usual bandage, axillary pad, &c., become entirely superfluous and unnecessary. Any amount of leverage that might be desired, however, can be readily added to the apparatus by attaching buckles to the inferior lateral margins of the plates, for securing and properly adjusting a piece of webbing around the front and sides of the chest.

471. *Conklin on Impacted Fracture of the Neck of the Femur, with Inversion of the Foot.*—Dr. W. J. Conklin, of Dayton, Ohio, reports in the *Columbus Med. Jour.* for Nov. 1882, the case of a large and fleshy but feeble woman, who, on the night of July 5, 1882, fell and injured her left hip. As nearly as could be ascertained, she fell backward and to the left, striking upon the great trochanter. She was unable to move without assistance; but, under the impression that it was only a bruise, domestic remedies were applied for a few days after the accident. When seen, she was in bed with the limb slightly flexed, rotated inwards, so that the patella faced the opposite thigh, and shortened to the extent of one inch. The position of the limb at once suggested a dislocation upon the dorsum ilii. A careful examination, however, showed that the head of the bone clearly rotated in the acetabulum, and that the trochanter moved with it. The left trochanter was distinctly nearer the anterior superior spinous process of the ilium than the right. Pain was caused by pressure over the trochanteric region, which seemed somewhat thicker than on the opposite side. Gentle traction had no effect in overcoming the shortening; moderate flexion gave but little pain. Crepitus was not obtained. An impacted fracture of the neck of the femur was diagnosed, and all manipulative efforts discontinued. She lingered for four weeks after the accident, and finally died from exhaustion. The inversion of the foot remained constant during the progress of the case. The *post mortem* examination showed that, as is usual in impacted fractures of the neck of the femur, the line of separation at the base corresponded with the anterior and posterior intertrochanteric ridges. In the specimen, the whole neck is strongly driven into the cancellated tissue of the trochanteric fragment, and forms somewhat less than a right angle with the shaft. The principal fracture on the anterior surface follows the intertrochanteric line to its termination in the linea aspera, about one inch and a half below the lesser trochanter; the neck is driven in so as to leave a fissure, about one-quarter of an inch in width, between it and the anterior wall. A small fissure begins immediately above the tubercle, and extends almost horizontally across the greater trochanter for a distance of one inch and a quarter. The principal fracture on the posterior surface corresponds with the posterior intertrochanteric line. The lesser trochanter is broken off and twisted inwards and forwards, evidently by the force of the impaction; the fracture

communicates with that on the anterior surface. The tilting forward of this fragment leaves an irregular gap of more than an inch, at its greatest width, through which the impacted neck can be seen approaching the posterior surface and almost reaching the outer wall of the shaft. A narrow fissure runs from the upper margin of this gap along the great trochanter. The head of the femur is somewhat roughened, and an irregular collar of bone projects from the greater portion of the corona, evidently the result of chronic arthritis. Examples of this accident are of very infrequent occurrence. Professors R. W. Smith, Bigelow, and Hamilton have each met with but one case.

472. *Leistikoff on Injections of Corrosive Sublimate in Gonorrhœa.*—Dr. Leistikoff (*Deutsche Med. Zeitung*, Sept. 7, 1882) confirms the statements of Neisser as to the presence of a special bacterium in gonorrhœal discharges. In the first stage, when the discharge is thick and abundant, few of the bacteria can be seen. They are found in great numbers in the thin secretion of the later stages, sometimes in cases lasting a year. Leistikoff employs an injection of corrosive sublimate, which Koch has found most fatal to bacteria; a solution never stronger than 1 part to 20,000; in private practice, a still weaker solution of 1 part to 30,000. The injections are used three times a day, and continued three or four days after discharge has ceased. The bacteria disappear, or are greatly diminished in number, after one day's use of the injections, but return if the latter be discontinued too soon. Treatment by injections should not be begun until the acute inflammation has subsided.

MEDICINE.

RECENT PAPERS.

473. MARIE.—Hysterical Angina. (*Jour. de Méd. et de Chir. Prat.*, Feb. 1883.)
474. CHARCOT.—Incomplete Tabes. (*Jour. de Méd. et de Chir. Prat.*, Feb. 1883.)
475. WESTERBROOK AND OTHERS.—Aspiration of the Heart. (*New York Med. Record*, Jan. 20 and 27, and Feb. 3.)
476. FIFIELD.—Idiopathic Endocarditis. (*Boston Med. and Surg. Jour.*, Jan. 11.)
477. SEE, G.—Heart-Disease, from Hepatic and Gastric Affections. (*Boston Med. and Surg. Jour.*, No. 1, 1883.)
478. KUVSHINSKY, P. D., AND PASTOR, E. A.—On the Course of Temperature in Scarlet Fever. (*Botkin's Ejedel. Klin. Gazeta*, 1883, Jan. 16, pp. 33-8.)
479. STEPANOFF, IVAN.—On a Case of Carunculus Internus. (*Pratch*, 1882, No. 22, pp. 367-68.)
480. BRIGIDI AND PACINOTTI.—The Relations of Cardiac Hypertrophy and Atrophied Kidney. (*Lo Sperimentale*, Aug. 1882.)
481. VIETA.—The Antagonism of Phthisis and Ague. (*El Genio Médico-Quirúrgico*, Jan. 15, 1883.)
482. LOMON.—Erysipelas from the Dust of Dry Reeds. (*El Sentido Católico en las Ciencias Med.*, Dec. 1882.)
483. SERRET.—On Vaccinia. (*El Siglo Médico*, Nov. 1882.)
484. SOKOLOWSKI.—The Local Treatment of Pulmonary Cavities. (*Deutsche Med. Wochens.*, 1882, and *Centralbl. für die Med. Wiss.*, Dec. 23, 1882.)
485. STATEN.—The Pathogenesis of Diabetes Insipidus. (*Centralbl. für die Med. Wiss.*, Feb. 3.)
486. DEININGER.—The Symptomatology of Oxyuris Vermicularis. (*Berliner Klin. Wochens.*, Jan. 13.)
487. VETTESSEN.—A Case of Persistent Pneumothorax. (*Centralbl. für die Med. Wiss.*, Feb. 5.)

488. HUTCHINSON.—Certain Diseases allied to Erysipelas. (*Ibid.*, Jan. 1883, p. 4.)

489. RAYMOND.—Latent Cancer of the Stomach. (*Med. Times and Gazette*, Jan. 1883, p. 74.)

490. HULL.—The Incubation Period of Typhus Fever. (*Ibid.*, Jan. 1883, p. 105.)

491. SMITH, CHARNLEY.—The Detection of the Bacilli of Tubercle in the Breath of Consumptive Patients. (*Ibid.*, Jan. 1883, p. 105.)

492. SANSON.—The Treatment of Some Forms of Valvular Disease of the Heart. (*Brit. Med. Jour.*, Jan. 1883, p. 146.)

493. NORVILL.—Typhoid Fever, with Ulceration of the Large and Small Intestines. (*Med. Times and Gazette*, Jan. 1883, p. 92.)

494. CAMERON.—Prolonged Infectiousness from Scarlet Fever. (*Lancet*, Dec. 1882, p. 1071.)

495. HOBSON.—Pernicious Anæmia, with Remarks on Forty-Five Cases. (*Practitioner*, Jan. 1883.)

496. WILLIAMS.—Bronchiectasis Treated by Tapping. (*Lancet*, Dec. 1882, p. 1107.)

497. CANE.—Cancer of the Pancreas, accompanied by Phlegmasia Dolens. (*Brit. Med. Jour.*, Feb. 1883, p. 354.)

498. CLARK.—Renal Inadequacy. (*Brit. Med. Jour.*, Feb., p. 345.)

499. MACKEY.—Rapid Breathing simulating Cardiac or Diabetic Dyspnoea. (*Lancet*, Feb., p. 227.)

500. PENNY.—Aneurism of Descending Thoracic Aorta simulating Pleuritic Effusion. (*Med. Times and Gazette*, Feb. 1883, p. 122.)

501. JONES.—A Case of Acute Diabetes. (*Lancet*, Feb. 1883, p. 317.)

ART. 473. *Marie on Hysterical Angina.*—Marie (*Jour. de Méd. et de Chir. Prat.*, Feb. 1883, and *Revue Mensuelle*) reports two cases of angina in hysterical patients. In one, the pain commenced in the left little finger, radiating up the forearm and breast of the same side. During the attack, which often lasted some hours, the pulse in the left radial artery became insensible, the lower parts and the entire left side became cold. In the second case, the attack was often preceded by general malaise; then suddenly a violent pain supervened in the præcordial region, accompanied by extreme anguish and invincible terror; the pain then radiated towards the neck, the left arm, the little finger, sometimes even towards the leg; the attack lasted ten to twenty minutes, and the face, which was at first tired and cold, became red and warmer. He compares them to the form of angina called 'vasomotor' by the Germans. [Dr. Balfour in his *Clinical Lectures on Diseases of the Heart*, 2nd ed., p. 298, has described two cases of this affection. *Rep.*]

474. *Charcot on Incomplete Tabes.*—Charcot (*Jour. de Méd. et de Chir. Prat.*, February 1883) diagnosed tabes dorsalis in (1) a patient with nystagmus, absence of patellar reflex, lightning pains, and double optic atrophy; (2) in a man with anæsthesia of the face, slight paresis of the orbicularis oris, transitory diplopia, and absence of patellar reflex without lightning pains or inco-ordination; there was also a patch of anæsthesia in the area of the radial nerve, and difficulty in retaining his urine; (3) in a man suffering from pains in the right arm, which had lasted nine years, especially severe in the axilla and thumb, with species of shocks or discharges; also alternations of sensation in the soles of his feet, as if he walked on balls, and when seated, he did not know on what he was sitting. Urination was difficult, and he had no knowledge of the act of defecation. Patellar reflex was present.

475. *Westbrook, Roberts, Janeway, and Wood on Aspiration of the Heart.*—The *New York Med. Record* for Jan. 20, 27, and Feb. 3 of the present year contains articles by several physicians, recording cases of aspiration of the heart in the hope of relieving the overloaded right ventricle. No serious consequences resulted, though little good was effected.

476. *Fifeild on Idiopathic Endocarditis.*—Dr. Fifeild (*Boston Med. and Surg. Jour.*, Jan. 11, 1883) reports a case of this disease. The patient was M. C., aged 7, free from personal or family history of rheumatism. The pulse was 120, the temperature 104°. There was no cough or præcordial pain. Dulness and coarse breathing were noticed at the base of the left lung. There were a loud systolic apex-murmur, and a faint to-and-fro rub. The urine was normal. Later, there was evidence of dilatation. Death occurred on the eighteenth day. No *post mortem* examination was made.

477. *Séé on Heart-Disease from Hepatic and Gastric Affections.*—Dr. Germain Séé (*Boston Med. and Surg. Jour.*, 1883, No. 1), in the course of a clinical lecture on overwork and strain of the heart, describes dilatation of the heart without valvular disease as a result of jaundice, dyspepsia, enteritis, diarrhoea, &c.

ROBERT SAUNDBY, M.D.

478. *Kuvshinsky and Pastor on the Course of Temperature in Scarletina.*—Following a suggestion by Prof. Botkin, the authors (*Ejened. Klin. Gazeta*, 1883, Jan. 16) undertook a series of thermometric observations in more than a hundred scarlatinal patients and registered the following results. 1. In a vast majority of the cases under observation, the temperature, after a lysis on the sixth to the tenth day, remained normal during the next three to eighteen days (mostly fourteen days), and then again rose to febrile figures (in some cases to 40° C. = 104° F. and above). Within one to five days it again gradually returned to the normal. In some few cases there were observed similar tertiary elevations of temperature, generally on the thirty-fourth to the thirty-sixth day of the disease. 2. Simultaneously with these secondary elevations of temperature, there were almost invariably found some other characteristic morbid phenomena, as swelling of the lymphatic glands (mostly cervical), more or less pronounced renal affection, reappearance of a diffused angina, inflammation of the endocardium, extreme weakness of pulse, and, lastly, in four cases, reappearance of the scarlatinal rash with subsequent desquamation. Considering the facts stated, Drs. Kuvshinsky and Pastor arrive at the conclusion that re-elevations of temperature in the course of scarlet fever, being far from accidental, are caused by the scarlatinal infection itself. The latter, therefore, in common with some other infectious diseases, shows a disposition to run its course with greater or lesser oscillations in the development of various symptoms of the pathological process.—[The subject of thermometric oscillations in the course of typhus and typhoid fevers was ably studied by Dr. V. M. Borodulin; see his paper in Botkin's *Archiv*, 1881, vol. vii.—*Rep.*]

479. *Stepanoff on a Case of Carunculus Intermus.*—Under this name, Dr. Ivan Stepanoff describes (*Vratch*, 1882, No. 2) a case of intestinal anthrax, or Buhl's 'mycosis intestinalis,' which occurred in a soldier, aged 21, who, soon after eating some boiled pork, began to suffer from vomiting.

On admission a few hours later, he presented the following symptoms:—extreme prostration, hippocratic face, cyanosis, rapid and weak pulse, cold extremities, moist and coated tongue, thirst, inflation of the belly, tenderness in the epigastric, umbilical, and right iliac regions, laboured slow respiration interrupted with sighs and groans, and incessant sickness. There was no diarrhoea, fever, headache, giddiness, or loss of consciousness. The nature of his disease was recognised only after his death, which occurred twenty hours after the first symptoms. About three feet from the cæcum the hyperæmic mucous membrane of the small intestine presented a dark red, roundish, flat, œdematous swelling, 2½ centimètres in diameter; at its margin was seen a black dense tubercle, about 1½ centimètres broad. Numerous dark red elevated small spots were scattered along the small intestine. Peyer's patches and the solitary follicles were slightly swollen. The abdominal cavity contained a considerable quantity of a sanguinolent fluid. The spleen and liver were hyperæmic, but not enlarged. The blood was almost black, with easily friable clots. Neither microscopic examination nor inoculation experiments were made. [Similar cases of internal anthrax were published by Drs. Rosenberg in the *Moscow, Med. Gazeta*, No. 4, 1876, and R. Albrecht in the *St. Petersburg, Med. Wochenschr.*, Nos. 43 and 44, 1878. Of six patients of the latter, five were wool-sorters. In only one of the cases, in which the skin was simultaneously affected, the diagnosis was made during life.—*Rep.*]

V. IDELSON, M.D.

480. *Brigidi and Pacinotti on the Relations of Cardiac Hypertrophy and Atrophied Kidney.*—The authors conclude (*Lo Sperimentale*, Aug. 1882) that cardiac hypertrophy in cases of interstitial nephritis is caused by the limitation of the circulatory field, by the greater functional activity of the remaining parenchyma of the kidney, not yet destroyed by the morbid process, and by, as an accessory element, the excitement of the vessels caused by the urinary principles circulating in the blood. They do not forget that the chemical theory has been confirmed by experiment (Grawitz and Oscar Israel), but they think that these experiments admit of another interpretation, and one more in favour of their theory. Oscar Israel produced hypertrophy of the heart in rabbits by the administration of urea and nitrate of potash (Virchow's *Archiv*, 1881, Band 86). But these, having an elective action on the kidneys, must determine in them a greater afflux of blood than normal, to respond to the excitement experienced by the parenchyma. This afflux of blood cannot be caused without greater blood-tension in the arteries of the kidneys, which, if the action were long continued, would cause hypertrophy of the heart. In the same way may be explained the cardiac hypertrophy which takes place after the removal of a kidney; before equilibrium can be established by augmentation in volume of the other kidney, so much time must pass that the heart becomes hypertrophied. The hypertrophy of the heart in pregnancy, Oscar Israel admits to be owing to the increased function of the heart itself for the excretion of the materials of organic reduction, increased by the fact of the presence of the fœtus *in utero*. The mechanical theory is much more plausible, by which the hypertrophy is attributed to the force which the heart exerts to overcome the resistance produced in the circulation by the great abdominal vessels of the pregnant uterus. Lewinski (*Zeitschr. für Klin.*

Med., Band i., p. 501) obtained atrophy of the kidney, and subsequently hypertrophy of the heart, after diminishing by half the calibre of the renal arteries by means of an incomplete ligature. In an animal thus operated on, the blood contained 0.039 per cent. of urea. Hence the cardiac hypertrophy could not be referred to irritation provoked by excess of urea in the blood.

481. *Vieta on the Antagonism of Phthisis and Ague.*—This is relative rather than positive; that is, phthisis occurs more frequently in regions where intermittents are not endemic, and *vice versa*; we cannot say that, where intermittents are dominant, there phthisis is not met with. Both diseases may occur simultaneously in the same person. Dr. Vieta (*El Genio Medico-Quirurgico*, Jan. 15, 1883), describes his experience in Azagra in the kingdom of Navarre. The situation of the town is damp and low; it is surrounded by the rivers Ebro and Ega; and formerly these constantly overflowed their banks, submerging half the town; the streets were unpaved, and full of holes in which the water lodged. In the outskirts much hemp was cultivated, which, when cut, was macerated in pools, of which there were a very large number. Intermittent fever in its worst forms was very prevalent. Now the streets are paved, the rivers embanked, so that they no longer overflow, and hemp is not so much grown, market-gardening being found more profitable. Intermittents are no longer endemic; a few simple cases occur, but the paludal cachexia is no more seen, and the cases yield readily to treatment. But with this diminution of intermittents, there is a marked increase in the number of cases of chronic affections of the chest, and especially of phthisis, which was formerly almost unknown. Dr. Vieta does not attempt to account for this antagonism; he attributes the phthisis to neglected bronchial catarrh, and not to hereditary influence or diathesis, which does not seem to exist. He therefore hopes that improved hygienic knowledge and practice, leading the people to be more careful as to exposure, &c., will diminish the number of cases of pulmonary disease.

482. *Lomon on Erysipelas caused by the Dust of Dry Reeds.*—According to the author (*El Sentido Catolico*, Dec. 1882), the symptoms are, high fever, pruriginous eruption, headache, cough, with mucous expectoration, often taking the tubular form, hoarse voice, pain in the throat and upper part of the chest, occasionally delirium, catarrhal ophthalmia with œdema of the lids, and œdema of the scrotum. Dr. Lomon considers the œdema of the lids and scrotum characteristic symptoms. The treatment consists in general blood-letting, demulcents, expectorants, and externally mild astringents. M. Baltus, of Lille, also reports cases of a similar disease which not unfrequently occurs in Provence. When the reeds (*arundo donax*) are cut and suffered to lie in heaps, especially if in the wet, a mould grows on them, consisting of spores and mycelium of the *sporotrichum dermatodes*. He attributes the disease to the irritation caused by the spores, which are shaken off when the reeds are moved.

483. *Serret on Vaccinia.*—Dr. Ramon Serret, in the *Siglo Medico*, of Nov. 1882, says that cow-pox is to be found much more frequently in calves than in adult animals. Its origin is not human small-pox; it is a distinct specific disease. Small-pox, however much attenuated, through however many generations of the bovine race it has been made to

pass, can never give rise to anything but small-pox. Small-pox and cow-pox are two distinct diseases. Cow-pox has its probable source of origin in horse-pox, which, transmitted to the cow, is converted into cow-pox and into humanised or Jennerian vaccinia when inoculated in man.

G. D'ARCY ADAMS, M.D.

484. *Sokolowski on the Local Treatment of Pulmonary Cavities.*—Dr. Sokolowski (*Deutsche Med. Wochens.*, 1882, and *Centralbl. für die Med. Wiss.*, Dec. 23, 1882), in a patient with a cavity below the right clavicle, injected a 1 per cent. solution of carbolic acid in the second intercostal space, about 5 centimetres from the sternum. The injection was immediately followed by severe dyspnoea and blueness of the face, which lasted for about two minutes, and was for a short time followed by a dry cough; the temperature rose, and did not fall to its normal degree until the next day. Subsequently, three similar injections were made without any other signs of reaction beyond elevation of temperature. Two injections of a 5 per cent. dilution of tincture of iodine were afterwards employed with scarcely perceptible reaction, and unattended with dyspnoea. Meanwhile the general condition of the patient became worse. Dr. Sokolowski has treated several other cases of phthisis by these local injections with no good results.

485. *Statten on the Pathogenesis of Diabetes Insipidus.*—H. Statten records (*Centralbl. für die Med. Wiss.*, Feb. 3) the case of a man who received a wound on the side of his neck and the back of his head. Transitory unconsciousness and double vision occurred, and subsequently deafness on the side of the injury, the left, with total paralysis of the rectus externus on the same, and partial paresis of the same muscle on the opposite side. On the left side hearing was lost in the external meatus, but the ticking of a watch applied to the side of the head was audible. The urine, which amounted to twelve litres daily, was free from albumen and sugar. The treatment, free administration of iodide of potassium, was attended by notable reduction in the quantity of urine. The author supposes the injury to have consisted in destruction of the root of the left abducens nerve, probably with hæmorrhagic cyst, and refers to cases in which this pathogeny has been recorded.

486. *Deininger on the Symptomatology of Oxyuris Vermicularis.*—Dr. Deininger, of Dinkelsbühl (*Berliner Klin. Wochens.*, Jan. 3), says that it is a question that has often been discussed whether intestinal worms can possibly excite severe reflex nervous disorders, such as chorea, convulsions, epilepsy. The older physicians, in default of a more exact pathology, attached great importance thereto, and attributed to them large etiological powers. Later medical literature, without denying, looks sceptically upon this view. More recently, however, Dr. Deininger states, cases have been recorded in which there have been epileptic and other convulsive affections, and gives the following case. A child, aged four and a half years, born of healthy parents, suddenly suffered a severe convulsive attack, which was preceded by peevishness and whimpering; the eyes became fixed, and, uttering a cry, she fell to the ground in a fit of epilepsy, followed by cramps of a tetanic character, with loss of consciousness. The paroxysm lasted from five to ten minutes, gradually subsiding, to be shortly repeated, evening after evening. Dr. Deininger examined the anus, and found a large mass of ascarides. On removing these by an injection of cold water the patient

rapidly recovered. The repetition of glysters of cold water and the exhibition of calomel and santonine completed the cure. This case, the author holds undoubtedly to have originated in excitement by ascarides, and draws the practical conclusion that in all cases of infantile convulsive disorders, where the exciting cause is not apparent, the bowel should be examined for *oxyuris vermicularis*.

487. *Vedlesen on a Case of Persistent Pneumothorax.*—Dr. Vedlesen (*Centralbl. für die Med. Wiss.*, Feb. 5) relates the following case. A girl, aged 18, the subject of phthisis at the apex of the left lung, one morning at her toilet, in bending forward her body, was suddenly seized with a sharp pain in her left side, attended with dyspnoea. Examination found pneumothorax. Fourteen days later, a dry, creaking sound was heard in the trachea, and audible at the mouth at a certain distance from the patient. It attended most distinctly the end of each inspiration. The noise continued for three days without cessation, and was worrying to the patient; it then ceased and was not again experienced. In the course of a month she was quite free from any further ill-effects of the accident, although the same condition of the thorax remained during seven months that she was under observation. The explanation offered by the author is that a flap-like lesion originally took place at some little depth in the lung, subsequently gave way, and afterwards became covered in by pressure of pneumothorax.

W. B. KESTEVEN, M.D.

488. *Hutchinson on Certain Diseases allied to Erysipelas.*—Mr. Jonathan Hutchinson (*Med. Times and Gazette*, Jan. 1883, p. 4) writes, asserting that for many years he has stated erysipelas to be simply a specialised form of inflammatory action, and not, as it is commonly defined, a specific fever. It has no appreciable period of incubation, its duration is irregular, and it can be easily cut short by treatment. One attack does not prevent another, but rather increases proclivity, and, above all, it is capable of spontaneous origin. Transitoriness is an essential feature of all erysipelatous action. Although congestion is marked in most cases, yet it is not absolutely invariable; there is a form of erysipelatous œdema in which there is no visible distension of blood-vessels, called white erysipelas. Mr. Hutchinson remarks that any inflammation which travels, and is attended by œdema, is of the nature of erysipelas. Medical and surgical erysipelas are not distinct diseases; both may originate from mere exposure to cold, though surgical erysipelas is very often unquestionably caused by contagion. Mr. Hutchinson then goes on to the consideration of a group of maladies of an erysipelatoid nature, and sums up by putting into one family group—erysipelas, both traumatic and idiopathic, white erysipelas and brown erysipelas, vesicating erythema, recurring œdema of the face, elephantiasis, and some forms of carbuncle.

489. *Raymond on Latent Cancer of the Stomach.*—M. Raymond (*Med. Times and Gazette*, Jan. 1883, p. 74) has made some interesting remarks on the difficulties that are met with in diagnosis in cases of cancer of the stomach. Although there are seldom any definite physical signs, there are usually two grand fundamental symptoms—dyspepsia and cachexia. In the case cited by M. Raymond there was no dyspepsia, and therefore the idea of cancer was dismissed; but at the *post mortem* examination the stomach was discovered to have a number of sub-mucous greyish tumours, varying in size from an

apple downwards, scattered all over its walls, but most numerous at the posterior aspect of the greater curvature. All the other organs were healthy.

490. *Hull on the Incubation Period of Typhus Fever.*—Dr. Gordon Hull, in the *Brit. Med. Jour.*, Jan. 1883, p. 105, gives notes of three cases of typhus fever in which the period of incubation was shorter than that usually assigned. The first case could not have had a greater incubation period than six days, the second only three days, while in the third case the period was between three and seven days. Dr. Murchison, however, states that typhus is rarely contracted from a patient in the acute stage, but the cases noted seem exceptions to this statement, as two of them contracted the disease within a week of its breaking out in the first case noted.

491. *Smith on the Detection of the Bacilli of Tubercle in the Breath of Consumptive Patients.*—Dr. Chanley Smith, in the *Brit. Med. Jour.*, Jan. 1883, p. 105, describes a simple method for demonstrating the presence of the bacilli of tubercle in the breath of consumptive patients. Two thin sheets of fine cotton-wool are placed in the outer compartment of an ordinary 'pepper-duster' respirator; the patient is ordered to breathe through this several times a day, and the inner layer catches all the particles emitted from the lungs. This layer of cotton-wool is then converted into collodion, some of which is then poured on to a microscope-slide, and allowed to run all over it, taking care to obtain as thin a film as possible. This film is then stained by one of the well-known methods, and the bacilli are easily detected. [This observation answers the objection of some observers who assert that the bacillus is merely a fat-cell. *Vide Med. Times and Gazette*, Jan. 1883, p. 26.—*Rep.*]

492. *Sansom on the Treatment of Some of the Forms of Valvular Disease of the Heart.*—Dr. Sansom, in the *Brit. Med. Jour.*, Jan. 1883, p. 146, gives an abstract of the Lettsomian Lectures on Diseases of the Heart, and refers to the morbid anatomy of mitral regurgitation giving the varieties of morbid change which bring about this result. He next goes on to divide the cases, in which the signs indicating mitral regurgitation are evident, into clinical groups, discussing the treatment of each group. The first group comprises those cases of marked anæmia which indicate signs of mitral regurgitation; in these cases the regurgitation is due to the muscular substance of the ventricles not acting properly, so that the aperture into the left auricle is not completely closed. The second group includes those patients in whom a systolic apæx-murmur is present, due to a neurosis of the cervical sympathetic. The third group contains those cases in which mitral regurgitation manifests itself during the 'evolution of certain fevers.' The fourth group contains those who are subjects of acute or subacute rheumatism. The chief drugs noticed are digitalis, belladonna, casca, caffeine, and convallaria majalis.

493. *Norvill on Typhoid Fever with Ulceration of Small and Large Intestines.*—Mr. Norvill, in the *Med. Times and Gazette*, Jan. 1883, p. 92, gives the notes of a patient, aged 42, who was admitted suffering from diarrhoea and extreme weakness. There was also marked deafness, and considerable stupor and delirium. The diarrhoea continued, the heart's action became very weak, there was persistent cough with some dulness at the right apex, and a constant high temperature ranging from 102°

to 106° F. Death occurred six days after admission. The *post mortem* examination showed no signs of peritonitis, and no ascitic fluid. The intestines, small and large, were distended with air. Peyer's patches were typical of typhoid fever. In the ascending transverse and descending colon many of the solitary glands were ulcerated, also some of the solitary glands of the small intestine. This case would probably have ended in perforation, had the patient lived longer. Dr. Cockle adds that he lately lost a case of typhoid fever from perforation in the rectum, and another from double perforation in the colon.

494. *Cameron on Prolonged Infectiousness from Scarlet Fever.*—Dr. Spottiswoode Cameron, in the *Lancet*, Dec. 1882, p. 1071, cites some cases suggestive of a probably prolonged infectiousness in some convalescents from scarlet fever, and remarks that, in his experience at the Huddersfield Fever Hospital, the infectiousness of scarlet fever lasts seldom less than eight weeks, often ten, eleven, or twelve weeks—in fact, as long as there is the least desquamation there is danger of infection.

495. *Hobson on Pernicious Anæmia with Remarks on Forty-five Cases.*—Dr. Hobson in the *Practitioner*, Jan. 1883, gives the notes of a case of pernicious anæmia in which a favourable prognosis was given by two medical men, and in which they were deceived. The facts of the case were as follows. Miss M., aged 20, always delicate, had been suffering with backache—uterine or ovarian—for some weeks, but had improved under treatment. She consulted Dr. Hobson for marked anæmia, with a history of the last menstruation having been very profuse; she also complained of cough and expectoration of blood-stained mucus. Physical examination of the chest revealed nothing abnormal. In a few days extreme weakness came on, with extreme pallor and bleeding from the nose and the mucous membrane of the mouth. Ergot and liquor ferri perchloridi had no influence, and menorrhagia returned, though the period was not due. Ergotine was given subcutaneously and the iron increased, and for three or four days the patient improved; but the hæmorrhage soon returned, and, notwithstanding repeated injections of ergotine and the free use of stimulant injections, the patient died very shortly. Dr. Hobson alludes to Dr. Coupland's Gultonian lectures on anæmia, where the following classification was proposed—

Anæmia	{	symptomatic	{ simple.
		idiopathic	{ pernicious.
			{ simple.
			{ pernicious.

In the forty-five cases noted, only twelve arose apparently without any antecedent cause. In many there was a history of previous hæmorrhage, and Dr. Coupland in his lectures says: 'A profuse hæmorrhage, which at the time may threaten life, leaves behind an anæmia which never disappears and may become pernicious—i.e. may deepen in intensity in spite of treatment.' Dr. Hobson concludes by suggesting that there may be a certain weakness, hereditary or acquired, in the organs responsible for the production of fresh blood-cells, whereby the resources within themselves are unduly limited. So long as these organs have a sufficient blood supply they can keep up with the demand of the economy, but directly the supply, from whatever cause, fails, their power of cell-production fails also.

496. *Williams on a Case of Bronchiectasis treated by Tapping.*—Dr. Theodore Williams, in the *Lancet*, Dec. 1882, p. 1107, gives the notes of a case of bronchiectasis, in which Mr. Marshall made an opening between the fourth and fifth ribs, about two inches to the right of the right nipple, and, plunging a special trocar and cannula to the depth of four inches towards the root of the lung, succeeded in obtaining a large quantity of fetid matter. By means of a piece of French catheter tubing, the cavity was kept drained for some time; but eventually absorption of septic matter took place, and the patient died from an abscess in the brain, the other organs being free. The diagnosis of these cases is often difficult, but the spots of gurgle and the fetid expectoration greatly help. When there exists a labyrinthine series of dilatations, cavernous sounds are audible over a far larger surface than the size of the cavity, owing to its peculiar form. Dr. Williams ends his account by saying that the globular form of dilatation of the bronchi is worse to treat than the cylindrical, because all tonicity of the walls appears to have been entirely lost; and although we may tap and relieve one of these collections of fetid pus, we can never be quite sure that another one does not exist in another part of the lung, so that more than one operation is required. In one case, six openings were made.

497. *Cane on Cancer of the Pancreas, accompanied by Phlegmasia Dolens.*—Dr. L. Cane, in the *Brit. Med. Jour.*, Feb. 1883, p. 354, reports a case of a clergyman, aged 59, who consulted him for dyspeptic symptoms, and said his friends had noticed he had not been looking well for some months. A few days after this he complained of pain in the right calf, and there was slight swelling of the leg and tenderness along the inner side of the leg and ankle. Two or three days after, the right leg became similarly affected, and it was found that the right saphenous vein was plugged. A careful examination was made to ascertain the cause of the phlegmasia dolens; cancer was suspected, but no evidence of its existence was detected. Three months afterwards the patient gradually became aphasic; he could write, but not spell correctly. A few days after this, it was noticed that gradual paralysis of the right arm and right side of the face was coming on. It was not until six months after the patient was first seen that any tumour was detected, but when emaciation had become marked, Dr. Cane detected on the left side a flat, irregular mass, apparently adherent to the spine. The patient rapidly grew weaker, and died unable to make any mental effort, but apparently conscious. At the *post mortem* examination, it was found that a large irregular mass took the place of the pancreas, extending downwards about four inches. A number of cancerous glands, joined into one mass, surrounded the aorta and vena cava. The case, says Dr. Cane, illustrates remarkably the statements of Trousseau on phlegmasia alba dolens (*Clinical Lectures*, Vol. v.), that frequently the presence of phlegmasia dolens serves as a valuable aid in diagnosing the existence of deep-seated visceral cancer, in which there is no appreciable tumour.

498. *Clark on Renal Inadequacy.*—Dr. Andrew Clark, in the *Brit. Med. Jour.*, Feb. 1883, p. 345, gives an interesting account of renal inadequacy, a subject in which he has felt great interest for many years (vide *Medical Digest*, 1006 : 4). Dr. Clark commences his address by saying that he does not agree

with most of the young men of the time who declare that there is no such thing as functional disease, and by asserting that disease expresses itself in three different ways:—1. functional disease, in which there is not the smallest change in structure; 2. disease in which there are temporary changes of structure, as, for instance, in hay-fever; and 3. where there comes at last a permanent change, as, for example, cancer or tubercle. The author then goes on to speak of those cases often met with, of patients characterised by a curious inability properly to repair damages done to them, either by accident or by disease. As a rule, they are always catching cold, and do not get rid of it rapidly; and if they have to undergo any surgical operation, the result is often uncertain. It is in such cases that one notices what Dr. Clark has termed 'renal inadequacy.' On examining the urine, it is low in specific gravity, generally 1003 to 1010; it is free from albumen and casts; also deficient in solid constituents, especially urea, and below the normal amount in quantity, generally about 40 ounces, notwithstanding the fact that the patient may drink a large quantity of water during the twenty-four hours. 'If you are consulted by a patient suffering from dyspepsia or nervousness, having headaches or complaining of malaise or weakness, or sleeplessness, then examine his urine, and if you find it deficient in solids, of a low specific gravity, and free from albumen, you will know with certainty that the kidney, though not diseased, is not doing its duty. If you give these patients a liberal diet they become worse; feed them with three meals a day only, and those light ones, they generally improve rapidly.' Cases of renal inadequacy after a time assume characteristics so like myxœdema that they can scarcely be distinguished. The prognosis in these cases is good if one is able to place the patient under complete control, regulating his diet, his work, and his exercise; and if he can be made sufficiently careful about exposure. At the same time, it must be remembered that his life is a perilous one; he is liable to peril from slight surgical operations, liable to inflammations, which do not readily repair, and also especially liable to hæmorrhages. In conclusion, a detailed account is given as to the mode of dieting such patients.

499. *Mackey on Hysterical Rapid Breathing, Simulating Cardiac or Diabetic Dyspnoea.*—Dr. E. Mackey, in the *Lancet*, Feb. 1883, p. 227, draws attention to the little stress laid upon dyspnoea as a possibly hysterical symptom, and gives the notes of a case of a girl, aged 17, to whom he was several times called, as her friends thought she was dying. Dr. Mackey points out the diagnostic differences between hysterical and diabetic dyspnoea. In diabetic dyspnoea the attack comes on suddenly and with violence; the inspirations are deep; the air passes well into the lungs, but apparently does not oxygenate the blood; the attacks may recur several times, but finally the patient becomes unconscious. The duration until death varies from ten hours to three days. The respirations seldom exceed 40 per minute, whilst the pulse is small, weak, and very rapid. In hysterical dyspnoea the respirations are 80 or even 120 per minute, whilst the pulse is from 60 to 80 per minute, and the previous history of the case aids greatly in forming a correct diagnosis.

500. *Penny on Aneurism of the Descending Thoracic Aorta Simulating Pleuritic Effusion.*—Dr. Penny, in the *Med. Times and Gazette*, Feb. 1883, p. 122, reports a case under Dr. White, of a

sailor, aged 39, admitted into the Seamen's Hospital at Greenwich, suffering from shortness of breath and pain in the left side, these symptoms having much increased during the past eighteen months. Physical signs on admission led to the supposition of pleuritic effusion on the left side; but exploratory puncture produced merely a drop or two of blood. The man died about five weeks after admission, having complained of little, except that at night some pain in the cardiac and epigastric regions would often come on, easily subdued by small doses of morphia. At the *post mortem* examination the heart appeared pushed forward and flattened by a large tumour behind. On removing the organs, it was seen that the aorta was enormously dilated from about three-quarters of an inch below the orifice of the left subclavian to just above the celiac axis, forming an aneurism which occupied nearly the whole of the lower part of the left chest. The liver and testes showed evidences of syphilis.

501. *Jones on a Case of Acute Diabetes.*—Mr. Jones, in the *Lancet*, Feb. 1883, p. 317, contributes a case of a police-constable, named Sansom, who was admitted into St. Thomas's Hospital in a very collapsed condition. A careful physical examination failed to discover any reason for the symptoms. No urine was voided for some hours, but a catheter was passed and about 4 oz. drawn off. The specific gravity was 1040, the reaction acid, and it contained a large quantity of sugar and some albumen. If it had not been for the obtaining of this urine the case might have remained a mystery. The progress of this case was unusually rapid, but still it went through the usual course of such cases. There is only one feature which seems strange, and that is that the disease was only supposed to have lasted five days. Cases have been recorded of death within three weeks of the first recognition of the disease, but never within a few days.

RICHARD NEALE, M.D.

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

502. BOZZOLO.—Iodoform in Diabetes. (*Gazz. degli Ospitali*, Feb. 4, 1883.)

503. CURCI.—The Action of Lead on the Vagus. (*Gazz. degli Ospitali*, March 25, 1883.)

504. SAKOVSKY, K. K.—On Choline and its Physiological Action. (*Pratch*, 1882, No. 21, pp. 336-41.)

505. KORCZYNSKI.—On the Therapeutic Use of Salicin. (*Przegł. Ad Lekarski*, 1882, Nos. 9 to 13.)

506. SEMTCHENKO, D. G.—Observations on the Action of Cow-koumiss in Various Gastro-intestinal Affections in Children. (*Pratch*, 1882, No. 19, pp. 304-6.)

507. BOJINSKI-BOJKO.—Some Observations on Small-pox. (*Ibid.*, 1883, No. 1, pp. 13-14.)

508. SHER.—On Iodoform in Diphtheria. (*Ibid.*, 1882, No. 22, p. 36f.)

509. ARCHANGELSKY.—On the use of Cold Baths in Erysipelas. (*Mediz. Prihaz. k Morsk. Shor.*, 1882, Part xxi.)

510. GARTCHINSKY.—On the Etiology and Treatment of Scurvy. (*Pracheb. Vedom.*, 1882, Nos. 23, 24, 27, 29, and 30.)

511. RUBINSKY, N.—On the Employment of Antiseptic Atropine Solution. (*Pracheb. Vedom.*, 1882, No. 20, p. 3210.)

512. RAWLE.—The Treatment of Dysentery. (*Brit. Med. Jour.*, Jan. 1883, p. 153.)

513. QUINLAN.—The use of the Mullein Plant in Pulmonary Consumption. (*Brit. Med. Jour.*, Jan. 1883, p. 149, and Feb., p. 379.)

514. DUMONT.—Hydrophobia Successfully Treated by Pilocarpin. (*Med. Times and Gazette*, Jan. 1883, p. 12.)

515. CZARTORYSKI.—Lime-juice in Diphtheria. (*Lancet*, Feb. 1883, p. 261.)

516. RINGER.—Manganese in the Treatment of Amenorrhoea. (*Lancet*, Jan., p. 7.)

517. COATES.—The Safe Administration of Chloroform. (*Lancet*, Dec. 1882, p. 1070.)

518. Salicylate of Soda in Scarlatina. (*Lancet*, Dec. 1882, p. 1104.)

519. FERGUSON.—The Salicylates and Hæmorrhage in Enteric Fever. (*Brit. Med. Jour.*, Feb., p. 296.)

520. SLOPER.—Castor-oil and Glycerine as a Purgative. (*Lancet*, Feb., p. 262.)

521. Lime-juice as an Anaphrodisiac. (*Lancet*, Feb., p. 221.)

522. GIBBES.—The Treatment of Infectious Diseases by Blue Gum Steam. (*Lancet*, Feb., p. 316.)

523. STEELE.—Pruritus Ani. (*Brit. Med. Jour.*, Feb., p. 245.)

524. MACDONALD.—The Use of Sulphurous Acid in Scarlatina Maligna. (*Brit. Med. Jour.*, Feb., p. 249.)

525. STUART.—Capsicum as an External Application. (*Brit. Med. Jour.*, Feb., p. 389.)

526. Convallaria Majalis in Heart-Disease. (*Brit. Med. Jour.*, Feb. 1883, p. 368.)

527. CARTER.—Gelsemium in Tetanus. (*Brit. Med. Jour.*, Jan., p. 9.)

528. CHURTON.—The Action of Hyoscyamine. (*Brit. Med. Jour.*, Jan. 1883, p. 9.)

529. SCHUCKING.—An Antiseptic Chamber. (*Centralbl. für die Med. Wiss.*, Dec. 9, 1882.)

530. KÜSTER.—The Treatment of Gout with Cold Water. (*Berliner Klin. Wochensh.*, March 19.)

531. JELENSKI.—The Employment of Iodide of Potassium in Enteric Fever. (*Berliner Klin. Wochensh.*, March 12.)

532. LEWIN.—The Behaviour of Santonin in Animals, and its Therapeutic Employment. (*Berliner Klin. Wochensh.*, March 19.)

533. SOUSA-MARTINS.—On a Contra-indication for Pilocarpin in Bright's Disease. (*A Medicina Contemp.*, Jan. 7, 1882.)

534. DUCASSE.—The Anæsthetic and Diuretic Action of Extract of Stigmata of Maize. (*Revue de Thérap.*)

535. SMITH, A. A.—Small Doses Frequently Repeated. (*New York Med. Jour.*)

536. PIFFARD.—Calx Sulphurata. (*Journal of Cutaneous and Venereal Diseases.*)

ART. 502. *Bozzolo on Iodoform in Diabetes.*—The author, at first disappointed with Prof. Moleschott's treatment of diabetes mellitus, has again recently tried it in two cases with better success. The quantity of iodoform given was much larger than in his first cases, two grammes being administered daily. In one mild case the glycosuria entirely disappeared; in the other case, which was very severe, the sugar was diminished in amount. In both cases the quantity of urine was lessened.

503. *Curci on the Action of Lead on the Vagus Nerve.*—The author finds, as the result of experiments on animals, that the salts of lead exert an irritant action on the pneumogastric nerve. They act not only on the cardiac inhibitory centres, but also on the peripheral intracardial branches. The heart-beats diminish in frequency and become intermittent. Systole, however, is rendered shorter, and diastole is prolonged.

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504. *Sakovsky on Chinoline and its Physiological Action*.—Having pointed out that chinoline prepared after the methods of Runge and Gerhardt is very impure, Dr. K. K. Sakovsky (*Vratch*, 1882, No. 21) states that Dr. A. N. Vyshnegradsky was the first who, in 1879, obtained large quantities of the chemically pure drug by decomposition of cinchonine by caustic potash in the presence of cupric oxide (with subsequent distillation with water and extraction by ether). The author admits, however, that the synthetical method of preparation, published in 1881 by Skraup, is the best of all, being the cheapest and giving the greatest percentage of the drug (25 per cent. of the mixture taken, while Vyshnegradsky's method gives 20 per cent.). In his physiological experiments on rabbits, cats, and dogs, and in clinical on malarial and typhous patients, Dr. Sakovsky used chiefly a solution of pure chinoline in olive-oil (1 to 2) which he injected under the skin of the buttocks. He alleges that this mixture, in comparison with aqueous solutions of chinoline salts, has the advantage of causing no pain and leaving no inflammation, induration, or abscesses, when injected. His experiments on animals show that moderate doses of chinoline markedly lower the temperature (e.g., 0.066 gramme injected into a rabbit caused a maximal fall of 1.5° C.); and that large doses produce not only very considerable fall of the temperature (e.g., 0.3 gramme being injected into a rabbit, within $3\frac{1}{2}$ hours the temperature fell from 39.4° to 29° C. = 102.9° to 84.2° F.), but also depression and, ultimately, paralysis of the reflex activity of the spinal cord, with retardation and arrest of respiration and of the heart's action. He found also that when a certain quantity of the drug is administered in one large dose, its antipyretic influence is far stronger than when the same quantity is introduced in small portions. The cases of intermittent fever, in which the author employed chinoline, were mostly inveterate and extremely obstinate; still the results were very satisfactory. An extensive trial given to the drug in cases of typhous fevers led Dr. Sakovsky to the conclusion that an injection of 16 to 20 grains of chinoline, made in the evening, almost invariably causes a considerable reduction of the next morning's temperature (sometimes the fall was equal to 2.5° C. = 4.5° F.). No disagreeable symptoms, as giddiness, noises in the ears, &c., were observed. Generally, the author thinks that chinoline presents a sufficiently good and cheap substitute for quinine. The dose for an adult is given as half a drachm internally, or one scruple under the skin, administered as a single dose, or in portions following one another in short intervals. To mask the somewhat unpleasant taste of the drug, the author advises to add 50 parts of syrup or 20 of liquorice juice to each part of chinoline. The same author carried out some experiments on rabbits in order to ascertain the physiological action of certain products of chinoline.

1. *Ethylpyridine* (C_8H_9N).—This is one of the products formed under the decomposing action of caustic potash on cinchonine. It possesses a strong antipyretic property, but at the same time gives rise to generalised clonic and tonic convulsions.

2. *Lepidine or methyl-chinoline* ($C_{10}H_9N$).—This, of which the origin is as above, is void of any pronounced antipyretic action.

Pyridine (C_5H_5N).—This is one of the products formed side by side with chinoline, prepared after Runge's method. It has

very slight antipyretic properties.

Pyridine-carbonic acid.—This product of oxydation of chinoline strongly lowers the temperature, but is toxic, like ethylpyridine.

Oxylepidine ($C_{10}H_9NO$).—This is one of the products of the decomposition of quinine under the influence of caustic potash. It is a powerful antipyretic, and void of toxic properties; but its price is higher than that of gold. [In the LONDON MEDICAL RECORD of 1882 is to be found a series of papers treating of the physiological and therapeutic value of chinoline. See Donath's article in February, p. 50; Von Jaksch's, Hoffmann and Schötenasch's, and Kupke's, in March, p. 95; Brieger's, April, p. 137; Seifert's, August, p. 316.]

505. *Korczynski on the Therapeutic Action of Salicin*.—Prof. Korczynski details (*Przegląd Lekarski*, 1882, Nos. 9-13) the results of his clinical observations on the action of salicin. In acute febrile diseases, its antipyretic influence is about half that of quinine; moreover, the fall of temperature proceeds more slowly, and is of shorter duration, very seldom lasting to the next day. In some rare cases salicin acts more strongly than quinine; especially in the later stages of a disease, after a previous reduction of temperature by the administration of quinine. In the acme, salicin (like quinine) influences on temperature very little. Its antipyretic action is more marked in mild cases, where the temperature does not reach a high figure from the beginning. Antipyretic doses are 5 grammes (75 grains) for patients under 16 years, and 6 to 10 grammes (90 to 150 grains) for an adult. Unpleasant physiological effects are produced by salicin far more rarely than by quinine or salicylates; and they never attain any considerable degree. In acute articular rheumatism, the daily administration of 6 to 15 grammes of salicin very often brings excellent results, and is especially indicated in cases of old people, of gastro-intestinal disturbances, of cardiac degeneration, &c., where salicylic acid is contra-indicated. For malarial fevers, salicin, given in daily quantities of from 6 to 15 grammes in the day, may cure the affection, and reduce the enlarged spleen to its healthy size. In these cases, 100 grammes of salicin are equal, as to their action, to 10 grammes of quinine. Dr. Korczynski thinks that in malarial affections salicin is indicated: 1, in cases of idiosyncrasy to quinine; 2, in obstinate cases, where even large doses of quinine remain inactive; and 3, in cases in which there exist digestive disturbances, whilst the subcutaneous or rectal administration of quinine is, for some reason, impossible.

506. *Semtchenko on Cow-Koumiss in Gastro-intestinal Affections in Children*.—Dr. D. G. Semtchenko, of Kazan (*Vratch*, 1882, No. 19), used, with most satisfactory results, koumiss prepared of cow's milk, in more than fifty cases of dyspepsia, acute and chronic intestinal catarrh, infantile cholera, diarrhoea of rickety children, &c. The age of the patients varied from three weeks to one year and nine months. A weak preparation, one day old, was always employed in increasing doses; at first in teaspoonfuls three or four times an hour, then in dessert spoonfuls and tablespoonfuls. From twelve to eighteen doses or more were given daily, according to the age. The method of preparation given by Dr. Semtchenko rather differs from that of Dr. Sakovich (see the LONDON MEDICAL RECORD, Nov. 1882, p. 453), and is as follows. Six litres of skimmed milk are mixed with seven litres of cold water. After addition of a fourth of a pound of yeast and a

pound and a half of powdered sugar, the mixture is stirred from time to time by means of a wooden shovel under the first twenty hours, and then kept in corked champagne-bottles, in a cool place (at 8° Reaum. = 50° Fahr.) To prevent the formation of flakes of caseine it is well to add some soda (two teaspoonfuls to thirteen litres of the mixture).

507. *Bojinski-Bojko on Iodine Painting in Small-Pox.*—In 1881, there was admitted to the Konotop Hospital a woman suffering from lumbar pain and other prodromal symptoms of small-pox. To satisfy the wish of the patient, Dr. Vetroff painted the whole lumbar region with tincture of iodine. On the next day, the painted region was found covered all over with variolous rash, while the remaining surface of the body presented only two vesicles. The course of the disease was remarkably mild. Having learnt this curious fact, Dr. Bojinski-Bojko (*Vratch.*, 1883, No. 1), when an epidemic of small-pox broke out in his district, began to paint with iodine the anterior surfaces of the thighs in every patient who came under his notice in the prodromal stage of the disease. In all four cases treated in this way, the rash was strictly limited to the regions painted, and the course of the affection was extremely favourable. An attempt to substitute a sinapism for the iodine gave negative results.

508. *Sher on Iodoform in Diphtheria.*—Dr. Sher, in the *Vratch.*, 1882, No. 22, recommends painting the diphtheritic fauces with iodoform solution in ether and almond-oil. His formula is: $\frac{1}{2}$ Iodoformii $\frac{1}{2}$; ætheris sulphurici, olei amygdal., aa $\frac{3}{4}$ ss. It is applied on a brush six times during the day, and twice at night.

509. *Archangelsky on the use of Cold Baths in Erysipelas.*—During an epidemic of erysipelas, broken out at the Cronstadt Marine Barracks, Dr. Archangelsky (*Mediz. Priboi. k Morsk. Sbor.*, 1882, Part xxi.) treated numerous cases in which the temperature reached 38° C. (102° F.) by baths at 24° to 26° R. (86° to 77° F.) for the young and strong, and 28° to 27° R. (95° to 92.75° F.) for the old and weak, with subsequent gradual cooling. The baths lasted from ten to twenty minutes, according to the height of the fever, and were repeated two or three times a day. In a vast majority of the cases the reduction of temperature varied between 0.5° and 2.5° C. (0.9° to 4.5° F.). The average duration of fever in the patients treated by cold baths was eight days, while in those treated by quinine and other means it was not less than thirteen days and a half. The baths acted as favourably on the nervous centres (absence of delirium and headache, feeling of comfort, &c.), but they had no influence whatever on migration of the erysipelatous process and appearance of abscesses. The local treatment consisted in rest, smearing with camphorated oil, and, in case of lymphangitis, incisions of mercurial ointment.

510. *Gartchinsky on Ozone in Scurvy.*—Starting from the hypothesis that scurvy is a disease developing from an increase of carbonic acid in blood on the expense of the oxygen of the latter, Dr. Gartchinsky proposes (*Vratcheb. Vedom.*, Nos. 23, 24, 27, 29, and 30, 1882) to use, in scorbutic patients, ozone in form of inhalations or ozonised drinking-water. He recommends also, as a prophylactic, ozonising the air of dwellings (instead of using fresh vegetables and juices).

511. *Rubinsky on the Use of Antiseptic Solution of Atropine.*—Dr. N. Rubinsky (*Vratcheb. Vedom.*,

No. 20, 1882) endorses the recommendation by Dr. Kroemer (see LONDON MEDICAL RECORD, Feb. 1882, p. 71) concerning the beneficial use of antiseptic solution of atropine. He adds one or two drops of 50 per cent. alcoholic solution of carbolic acid to each ounce of atropine solution. By this addition, the latter is kept perfectly clear two or three months.

V. IDELSON, M.D.

512. *Rawle on the Treatment of Dysentery.*—Mr. Rawle, in the *Brit. Med. Jour.*, Jan. 1882, p. 153, suggests the following plan of treatment in cases of dysentery. First having placed the patient between warm blankets, inject 1½ pint of warm water. This is not retained many minutes as a rule, but is very soothing. Then the following injection is given:—Disulphate of quinine, 10 grains; compound tincture of camphor, 4 drachms; decoction of starch to 2 ounces. Mix and give warm, and repeat in an hour or two if not retained. If griping pains be felt, half-drachm doses of chlorodyne are useful. Mr. Rawle says he has discarded ipecacuanha from his treatment as of little service. [Anyone who has repeatedly seen the remarkable effects of large doses of ipecacuanha in the worst forms of dysentery will demur to Mr. Rawle's last proposition.—*Rep.*]

513. *Quinlan on the Use of the Mullein Plant in Pulmonary Consumption.*—Dr. Quinlan, in the *Brit. Med. Jour.*, Jan. 1883, p. 149, gives an account of his experience in the treatment of pulmonary consumption by the great mullein plant, or verbasum thapsus. The plant grows wild, and is much cultivated in some parts of Ireland, where it has long had great repute in the treatment of phthisis. The mode of administering it is to place an ounce of the dried leaves or a corresponding quantity of the fresh ones in a pint of milk to boil for ten minutes, and then to strain, and to give it to the patient twice a day. Notes are given of seven cases in which the drug was tried; the result being that the cough and dyspnoea were loosened, and most of the patients gained weight under treatment. In the same journal for February 1883, p. 379, Dr. Quinlan says one very important therapeutical action had been overlooked—viz., its weight-increasing effect in pretubercular or early phthisical cases. A striking instance of this is cited, and a short account of the value of a decoction in milk of mullein in cases of advanced phthisis is added, showing that in advanced cases even the strength of the patient can be maintained by giving the drug as a food more than as physic.

514. *Dumont on Hydrophobia successfully Treated by Pilocarpin.*—In the *Med. Times and Gazette*, Jan. 1883, p. 12, mention is made of a case of hydrophobia in a shepherd who had been bitten by a rabid dog. The patient was taken to a hospital, where Dr. Denis Dumont treated him with morphia injections, bromide of potassium, and codeia, without any result. He then tried hypodermic injections of pilocarpin in doses of one centigramme. Profuse perspiration and salivation set in, followed by almost immediate relief, and in a few days recovery was complete. [Since pilocarpin was suggested by the reporter as likely to be a valuable agent in the treatment of hydrophobia in 1879, many cases have been reported in which recovery took place during the administration of the drug. These may be referred to in sect. 527 : 3 *Medical Digest*; and since the last edition of this work other cases have been published in the *Lancet* 1882, and *Med. Times and Gazette*, 1883. Only one

observer who has tried the treatment expresses his dissatisfaction with the results. Vide *Lancet*, Vol. i., p. 1161, 1882.—*Rep.*

515. *Czartoryski on Lime-juice in Diphtheria.*—In the *Lancet*, Feb. 1883, p. 261, the value of lime-juice in the treatment of diphtheria is strongly brought forward, being relied upon in China as a specific. [In the *Medical Digest*, sect. 823 : 6, it is shown that Dr. Cazine of Boulogne, in 1860, attached great value to the use of lime-juice and garlic, a statement fully borne out in 1865 by Dr. Révillout, who considered lime-juice one of the most efficacious modes of treatment in diphtheria, and one that saved his own life. He used the juice of four lemons every hour as a gargle, swallowing as much as he could. In twenty-four hours, all symptoms disappear. Vide *Brit. and For. Med. Chir. Rev.*, 1860 and 1866.—*Rep.*]

516. *Kinger on Manganese in the Treatment of Amenorrhœa.*—Dr. Sydney Ringer and Dr. Murrell, in the *Lancet*, Jan. 1883, p. 7, call attention to the value of permanganate of potash in certain forms of amenorrhœa. It is given in two forms, the pharmacopœial solution, and the permanganate made into pills, of one or two grains each. Generally one grain, three times a day, is enough to commence with, increasing to two grains four times a day. The most striking results were obtained in young women between the ages of eighteen and twenty-five, who from some accidental or trivial cause, such as catching cold or getting wet, had 'missed' once or twice after having been regular. In cases where the patient had menstruated only once or twice, and had then entirely ceased for some months, the treatment answered admirably. In girls about fifteen or sixteen, who have never menstruated at all, the permanganate is not so certain in its action; but even in these cases the action is frequently prompt. In several cases the pills proved of great value in curing whites of long standing. The effects of the drug are due to the manganese, and not to the potash, as shown by the fact that manganate of soda or binoxide of manganese are equally efficacious. It does not act by improving the condition of the blood, for in cases of chlorosis the permanganate not unfrequently brings on the period, without improving the amenorrhœa.

517. *Coates on the Safe Administration of Chloroform.*—Mr. Martin Coates, in the *Lancet*, Dec. 1882, p. 1070, draws attention to his method of administering chloroform, published in 1858, which is as follows. By means of a Snow's inhaler, five minims of chloroform are given, followed by ten in twenty seconds, and in forty seconds by fifteen, and then fifteen every minute until the patient becomes insensible, and afterwards an occasional ten minims; this is sufficient in almost every case to produce and maintain complete anaesthesia. Mr. Coates has never had a death under his hands, and has often given it to patients of an advanced age, and also to patients suffering from tricuspid insufficiency; in such cases he gives twenty minims of ether instead of chloroform when the pulse drops, continuing the chloroform when the pulse regains its strength.

518. *Salicylate of Soda in Scarlatina.*—A writer in the *Lancet*, Dec. 1882, p. 1104, states that in cases of scarlatina he has used the following prescription with great success:—Forty grains of salicylic acid, half a drachm of carbonate of ammonia, two drachms of syrup of mulberry, and three drachms

of syrup of lemons to three ounces of water: one teaspoonful every two hours for a child eight years old.

519. *Fergusson on the Salicylates and Hæmorrhages in Enteric Fever.*—Mr. James Fergusson, in the *Brit. Med. Jour.*, Feb. 1883, p. 296, records some facts regarding the use of salicylate of soda in typhoid fever. Some cases were being treated with this drug, when it was noticed that there was an increase in the number of cases of hæmorrhage from the bowels; the salicylate of soda was supposed to be the cause of it. A foreign observer about this time noticed that salicylate of bismuth caused intestinal and nasal hæmorrhages. Dr. McLean Wilson, who succeeded Mr. Fergusson at the Perth Infirmary, confirmed these observations whilst treating typhoid fever with the salicylate.

520. *Sloper on Castor-oil and Glycerine as a Purgative.*—Mr. Sloper in the *Lancet*, Feb. 1883, p. 262, writes, suggesting the great advantages of combining glycerine and castor-oil in equal proportions, to act as a purgative. Messrs. Allen & Co. have prepared a mixture which disguises the nauseous taste of the oil, and is in the form of a semi-solid compound, which acts more efficiently than any other preparation Mr. Sloper has tried. One small teaspoonful is an effective dose; and has the advantage over other purgatives of having a lasting influence, and not needing a continued renewal. At p. 303 Mr. Brevis writes, saying that he easily prepared an emulsion of glycerine and castor-oil by adding the oil gradually to the glycerine in a mortar, and triturating thoroughly. By this means the nauseous taste is quite disguised.

521. *Lime-juice as an Anaphrodisiac.*—In the *Lancet* of February, p. 221, a letter signed 'Nautilus' speaks of sailors stating that lime-juice acted as an anaphrodisiac; and at p. 260 another letter appears from Mr. Berdoe, stating that the anaphrodisiac effect is probably due to the action of the 'salts of potash, which cause the elimination of the products of the increased metamorphosis of tissue; the alkalies diminish the body-weight, impair the quality of the blood, and lower the pulse of the organism.'

522. *Gibbes on the Treatment of Infectious Diseases by Blue Gum Steam.*—Mr. Murray Gibbes in the *Lancet*, Feb. 1883, p. 316, writes a paper, bringing forward a treatment of diphtheria, which he has found very successful, viz., keeping the patient in an atmosphere of the steam of blue gum (*eucalyptus globulus*). It is also suggested to treat other infectious diseases on the same principle; it is not to the remedy alone that attention is drawn, but Mr. Gibbes maintains that most infectious diseases would be more readily cured, if the patient were kept in an atmosphere impregnated with steam saturated with some disinfectant. In an outbreak of diphtheria at New Plymouth, thirty-seven cases were treated by means of blue gum steam. All recovered without a bad symptom, and without the help of any drug except castor-oil.

523. *Steele on Pruritus Ani.*—In the *Brit. Med. Jour.*, Feb. 1883, p. 245, there is a short note saying that there need be no more itching about the anus. Thus Dr. Steele has found in sulphate of quinine, rubbed up with only sufficient lard to hold it together, a never failing specific in this affection. Another physician is similarly confident on the success of the local application of Peru balsam.

524. *Macdonald on the Value of Sulphurous Acid in Scarlatina Maligna.*—Dr. K. N. Macdonald, in the *Brit. Med. Jour.*, Feb. 1883, p. 249, draws attention to the therapeutic value of sulphurous

acid in the treatment of this disease. The mode of treatment is as follows. The moment the throat begins to become affected (suppose the patient a child of six years), ten minims of sulphurous acid with a small quantity of glycerine in water are to be given every two hours, whilst every three hours the sulphurous acid spray is applied to the fauces for a few minutes. In severe cases the pure acid may be used, but a mixture of equal parts of acid and water is generally strong enough. Sulphur may also be burned in the sick chamber several times a day. The mouth may be washed with solution of permanganate of potash, if the tongue and teeth be badly covered with sordes. Dr. Macdonald has had several opportunities of testing this mode of treatment, and considers it most reliable.

525. *Stuart on Capsicum as an External Application*.—Mr. Stuart, in the *Brit. Med. Jour.*, Feb. 1883, p. 389, refers to an article by Dr. Macdonald in the journal for February 10, in which capsicum and oil are used as an external application in lumbago, &c. Dr. Ringer notes its use in his *Handbook of Therapeutics*; and Mr. Stuart adds that in Yorkshire capsicum is freely used by rheumatic patients before sending for medical assistance.

526. *Corvullaria Majalis in Heart-Disease*.—In the *Brit. Med. Jour.*, Feb. 1883, p. 368, is an article on the use of the common lily of the valley (*corvullaria majalis*) as a diuretic, and in certain forms of heart-disease. 'It is useful in palpitation resulting from exhaustion of the pneumogastriacs; in simple cardiac arrhythmia with or without hypertrophy, and with or without valvular lesion; and in mitral constriction with absence of compensation in the left auricle and right ventricle. It may be given with advantage in mitral insufficiency, especially when there is pulmonary congestion with resulting dyspnoea. In Corrigan's disease, the peripheral arterial pulsations disappear, and respiration becomes markedly restored. In dilatation of the heart, with or without hypertrophy, convallaria is decidedly indicated. In cardiac dyspnoea it is inferior to morphia or iodide of potassium, but in some forms of asthma it is said to be useful.'

527. *Carter on Gelsemium in Tetanus*.—Dr. W. Carter, in the *Brit. Med. Jour.*, Jan. 1883, p. 9, refers to a paper of Dr. J. Read on the use of gelsemium in the treatment of tetanus, and remarks that he himself communicated a paper on the action of this drug to the Liverpool Medical Institution in the session of 1873-74, in which he came to the conclusion 'that the principal effects produced by large doses are extreme muscular relaxation without either stupor or delirium, in these respects resembling the action of conium maculatum.'

528. *Churton on the Action of Hyoscyamine*.—Dr. Churton, in the *Brit. Med. Jour.*, Jan. 1883, p. 9, gives some notes on a case of a gentleman, aged 58, suffering from a second attack of acute mania, in which hyoscyamine was given hypodermically, in doses at first of one-fortieth of a grain, then one-sixtieth and one-eighth of a grain. The effect was to produce sleep for a few hours; but, on awaking, the condition of the patient was not much improved.

RICHARD NEALE, M.D.

529. *Shucking on an Antiseptic Chamber*.—Dr. Adrian Shucking, of Pyrmont, describes (*Centrallbl. für die Med. Wiss.*, Dec. 9) a room into which the air is admitted only after having been filtered through cotton-wool, saturated with carbolic acid, vapour of bromine, &c. It is, he considers, adapted

more especially for the treatment of affections of the chest, surgical cases, infectious diseases, &c.

530. *Küster on the Treatment of Gout with Cold Water*.—Dr. Küster (*Berliner Klin. Wochens.*, March 19) describes the relations of gout and rheumatism. Having been himself a sufferer from gout, and having experienced disappointment from treatment by salicylates, warm baths, &c., the only result being a chronic state of the affection, he determined to try the hardening system. Every morning, winter and summer, Dr. Küster states, on rising from bed, for several years past he has a cold douche, and then rubs himself with a bath-towel; he sleeps in a cool room, with one of the upper windows open, so as to admit fresh air, even in the depth of winter. He has thereby become less sensitive to cold, and has lost the liabilities to recurrence of colds, and sore throat, and rheumatic pains, to which previously he had been subject. It is, Dr. Küster observes, only right to conclude that the augmented metamorphosis of tissue has dispelled the gouty attacks, and that this may fairly be attributed to the treatment; and further, that having determined to employ the same with his patients, he has obtained more favourable results than under the ordinary treatment and warm baths.

531. *Jéłenski on the Employment of Iodide of Potassium in Enteric Fever*.—Dr. Heinrich Jéłenski, of Dziatoszyce, Russian Poland, relates (*Berliner Klin. Wochens.*, March 12) a series of twenty cases in which he has administered iodide of potassium as his chief remedy in the treatment of enteric fever with satisfactory results, prefacing the record of cases with a brief historic notice. A summary of these observations affords the following conclusions. 1. Under the use of the iodide there is a regular duration of from fourteen to sixteen days, which (the author observes) cannot be claimed for any other means. 2. The temperature and pulse are both slowly and surely lowered, not only for a short time, as with many other antipyretics. 3. A prompt cessation of diarrhoea and abdominal pain. 4. The period of convalescence is shortened by the use of the iodide, and is not attended by the after-effects that often follow other antipyretic agents. The iodide, passing through the whole length of the intestine, affects its glandular structures; and there exerts its antiseptic and antiparasitic properties, so that the author regards it as a specific in the treatment of typhus.

532. *Lewin on the Behaviour of Santonin in Animals, and its Therapeutic Employment*.—Dr. Lewin (*Berliner Klin. Wochens.*, March 19), from a series of experiments on dogs, concludes that, for therapeutic purposes as a vermifuge, an aqueous solution of santonin is inert, and that the only rational mode of its administration is by solution in oil. In this medium it is excluded from the stomach, and is passed on into the intestine where by the peristaltic action it is slowly but uniformly dispersed, and brought into contact with the worms, which it quickly and effectually destroys. Oil of almonds, cocoa-oil, olive-oil, cod-liver oil, butter, &c., may, either of them, be employed as solvents.

W. B. KESTVEN, M.D.

533. *Sousa-Martins on a Contra-indication for Pilocarpin in Bright's Disease*.—Prof. Sousa-Martins (*A Medicina Contemporanea*, Jan. 7.) says that, in long-continued anasarca from chronic Bright's disease, the nutrition of the skin suffers, and the sudoriparous glands, being starved of blood,

cease to act. Pilocarpin ought never to be given in Bright's disease, without previously determining whether these glands are still functionally active. This may be done by the vapour-bath; if the skin respond by diaphoresis, then pilocarpin may be given with advantage; but, if no perspiration show itself, then pilocarpin may do harm. In a boy aged 10, with old anasarca from Bright's disease, pulmonary oedema, scanty urine containing much albumen, but with no cardiac complication, 2 centigrammes of hydrochlorate of pilocarpin were given hypodermically; cerebral symptoms showed themselves soon after the injection, and the boy died comatose the same evening. The cause of death was subarachnoid effusion, sufficient to compress the great nervous centres and to cause fatal coma. Prof. Sousa-Martins attributes the effusion to the action of the pilocarpin, which, as it could not escape by any of the usual channels of elimination, by diaphoresis, sialorrhoea, diarrhoea, or by increasing the action of the kidneys, was driven by a heterotopic electivity to the pia mater and arachnoid, causing a fatal effusion.

G. D'ARCY ADAMS, M.D.

534. *Ducasse on the Anæsthetic and Diuretic Action of the Extract of the Stigmata of Maize.*—The anæsthetic and diuretic action of the stigmata of maize was pointed out in 1879. Dr. Ducasse, judging from the results he has obtained by using this agent (*Revue de Thérap.*, p. 655), considers that its double action as an anæsthetic and diuretic has not been sufficiently appreciated. From 15 to 2 grammes a day of syrup or extract of maize stigmata relieves pain in chronic cystitis, gravel, and nephritic colic, better than any other known remedy. In the two latter affections it facilitates the expulsion of calculi. It is so evidently an anæsthetic, that Dr. Ducasse expects that the stigmata will be discovered to contain an alkaloid with a special anæsthetic action on the urinary system. In nephritic colic, especially, when subcutaneous injections of morphia fail to relieve pain, the syrup of maize stigmata lessens it considerably; and micturition, which speedily ensues, brings away a much larger amount of gravel than is generally observed. If the treatment be continued for some time without interruption, and afterwards at intervals, the attacks rarely return. In acute cystitis, the stigmata have not any anæsthetic effect, doubtless on account of the inflammatory condition which renders modification of the mucous membrane difficult. The diuretic action of maize is denied by a great many physicians; but Dr. Ducasse believes that failure has been due either to the mode of administration or to the quality of the medicine, and in support of his opinion quotes Dr. Landrieux, who concluded a work on this subject with the following remarks. '1. Preparations of the stigmata of maize are both useful in modifying the secretions of the urinary system and as an incontestable diuretic agent. 2. Diuresis quickly ensues; in about three or four days the quantity of urine is greatly increased. 3. The diuretic effects are also observed in cardiac and vascular affections. 4. The pulse becomes more regular, arterial tension is increased, and venous tension diminished. 5. It is a remedy which does not in any way disturb the nerves nor the digestive system. 6. Neither does it produce the slightest discomfort in chronic cases, and it can be administered for a month or six weeks with impunity.' Dr. Ducasse has collected many cases which support his views.

535. *Smith on Small Doses Frequently Repeated.* In urticaria, Dr. A. A. Smith recommends (*New York Med. Jour.*) 2 grains of salicylate of soda every hour or half-hour; in spasmodic croup, one one-hundredth of a grain of atropia in a goblet of water, a teaspoonful every hour or half-hour; in the nervous disturbances and excitements of children, the bromides in one or two-grain doses every ten or fifteen minutes. Teaspoonful doses of a solution of tartar emetic, one grain in a quart of water, given frequently, will relieve the wheezing and cough of a slight bronchitis in children. In orchitis and epididymitis, and also in dysmenorrhœa, two-minim doses of tincture of pulsatilla every hour are most efficient. Hæmorrhages from the uterus and hæmorrhoids will generally be stopped by two minims of the tincture of hamamelis every half-hour.

536. *Piffard on Calx Sulphurata.*—Dr. H. G. Piffard (*Jour. of Cutaneous and Venereal Diseases*) says that calx sulphurata (commonly misnamed sulphide of calcium) is a mixture of the sulphide and sulphate of calcium, but contains not less than 36 per cent. of the former substance. He adds:—'My own experiences, extending over a series of years, lead me to the inference that the drug is an aplastic or resolvent of great energy; that its tendency, when given in sufficient doses, is to break down and dissolve, rather than build up and restore. This theory of its action is in perfect harmony with the observed effects of its administration; and if it be the correct explanation, it will lead us to a multitude of useful applications of the drug. In other words, it appears to me probable that calx sulphurata will be found capable of fulfilling the part that was assigned to mercury thirty and forty years ago, that of a general resolvent in inflammatory exudations, chronic infiltrations, and possibly also in some forms of neoplasms.'

OBSTETRICS AND GYNÆCOLOGY.

RECENT PAPERS.

537. TRUZZI.—The Second Utero-Ovarian Caesarian Amputation of Professor Porro. (*Gazz. Med. Ital. Lomb.*, Jan. 6 and 13, 1883.)

538. DONATI.—Puerperal Eclampsia. (*Gazz. Med. Ital. Prov. Venet.*, Dec. 30, 1882.)

539. PEDRINI.—Ovarian Cyst Cured by Injection of Wine. (*Gazz. Med. Ital. Lomb.*, Feb. 17, 1883.)

540. TOLOCHNOFF, N. F.—On a Case of Chronic Inversion of the Uterus, treated and cured by means of a Colpeurynter. (*Vratch. Vedom.*, 1882, No. 522, pp. 3206-68.)

541. STEKLOFF, A.—Vaginal Injections of Hot Water in Obstetrical and Gynecological Practice. (*Vratch.*, 1882, No. 22, pp. 366-7.)

542. RUDOFF, M.—On Fœtal Ascites as a Cause of Complete Obstruction in a Case of Labour. (*Vratch.*, 1882, No. 14, p. 227.)

543. COATES.—Intravenous Injection of Fluids for Severe Hæmorrhage. (*Lancet*, Dec. 1882, p. 1110.)

544. VON WAHL.—Ovariectomy during Pregnancy: Re-opening of Wound and Protrusion of Intestines; Recovery. (*St. Petersburg. Med. Wochensh.*, No. 9, 1883.)

545. VON WAHL.—Resection of a Portion of Colon Adherent to a Malignant Dermoid Ovarian Tumour. (*Ibid.*)

546. BERTRAM.—Laparotomy for Removal of Tumours of the Fallopian Tubes. (*Berliner Klin. Wochensh.*, Jan. 22 and 29.)

547. ASHTON, J. H.—On the Treatment of Placenta Prævia.

548. BROCK, W. J.—On Obstinate Vomiting in Pregnancy. (*Glasgow Med. Jour.*, March 1883.)

549. HERRICK, O. E.—An Operation for Closing Douglas's cul-de-sac. (*Obstetric Gazette*, Cincinnati, Feb. 1883.)

550. JORISENNE.—On a New Sign of Pregnancy. (*Archives de Toxicologie*, No. 2, 1883.)

551. OLIVIER, A.—The Management of Labour in Breech Cases when the Legs are extended. (Paris, Delahaye, 1883.)

552. WOLCZYNSKY. Ascites as an Obstruction to Labour. (*Wiener Med. Presse*, No. 36, 1882.)

553. GARRIGUES.—Gastro-elytrotomy, with Special Reference to Porro's Operation. (*Amer. Jour. of Obstetrics and Diseases of Women and Children*, Jan., 1883.)

554. MURPHY.—The Effects of Trachelography on Fertility and Parturition. (*Ibid.*, Jan., 1883.)

ART. 537. *Truzzi on the Second Utero-Ovarian Caesarian Amputation performed by Professor Porro.* This operation was performed on Dec. 7 in the Obstetric Institute of Milan by Professor Porro (*Gazz. Med. Ital. Lomb.*, Jan. 6 and 13, 1883). The patient (thirty-seven years of age) had been once before pregnant, and had been safely delivered by means of craniotomy. The pelvic narrowing was of the third degree. She was admitted in the eighth month, and was obliged to keep her bed from the pain she suffered, owing to the increasing pressure of the enlarging uterus. She was very weak and anæmic, and the bowels were most obstinately constipated. It was determined to allow her to go her full time, and December 9 was fixed for the operation: but on December 7 the water broke and labour commenced. Notwithstanding the unfavourable state of the patient and the loaded bowels, Professor Porro determined to operate, which he did most ably, using spray and all antiseptic precautions. The patient died on the fourth day. The necropsy revealed as the cause of death strangulation of the intestine from adhesions of the visceral and parietal peritoneum at the margins of the wound, and from a band of exudation tightly enclosing the intestine as in a loop. There were fatty degeneration of the myocardium, and fatty infiltration of the liver and kidneys. The wound interiorly was perfectly united, the uterine stump being fixed to the inferior angle. The colon was loaded with hard feces. There was no trace of free or encysted liquid in the abdominal cavity. Death was caused not by any imperfection in the operation, but by a purely fortuitous accident—the abnormal adhesion of the intestinal loop to the abdominal wound. The morphia and sedatives which had been freely given may have helped to cause this, by paralysing the contractile activity of the muscular tunic of the intestines. The pressure of the intestinal gas and the loaded state of the rectum must have helped to keep the intestine pressed against the healing wound. Dr. Porro has already ordered some thin lamels of catgut, which he intends to use in analogous cases to prevent the immediate contact of the visceral and parietal peritoneum.

538. *Donati on Puerperal Eclampsia.*—Donati says (*Gazz. Med. Ital. Prov. Venet.*, Dec. 30, 1882) that eclampsia is not always the expression of the same pathological state, and cannot be explained exclusively by one or the other of the proposed theories. We must admit various forms, which, for practical and therapeutical purposes, may be reduced to three. 1. *Mechanical eclampsia* is due to increased

pressure in the aortic system from the pressure exercised by the uterus on the abdominal aorta, with consequent hyperæmia and cerebral oedema with or without renal stasis and albuminuria. Unless there be an organic affection of the kidneys, it disappears soon after delivery with the removal of the mechanical cause. These conditions are found chiefly in primiparae, in whom there is greater resistance of the abdomen and consequent pressure; in multiparae, in multiple pregnancy, and hydramnios. Now, if it is true that eclampsia is chiefly developed in these conditions, as is unanimously agreed; if more than four-fifths of cases of eclampsia are developed before or during labour, the pains increasing the pressure, it is reasonable to infer that the mechanical form of eclampsia is much the most common, and this induction is supported by the experience of most observers. 2. *Reflex eclampsia* is due to certain vaso-motor disturbances of the encephalic centres, provoked by an abnormal excitement of the nerves of the uterus. The frequent occurrence of eclampsia in the first period of labour, in primiparae, in unmarried women who are subject to special mental distress, and in those subject to nervous storms, obliges us to admit in a certain number of cases, this second pathological condition of eclampsia. 3. *Toxic or dyscrasic eclampsia* is due to certain disturbances of the blood, as uræmia, septicæmia, &c. Twenty years ago, the idea prevailed that eclampsia was invariably due to the retention in the blood of certain principles of organic reduction (urea and carbonate of ammonia) which the diseased kidneys were not able to eliminate. Now, it is known that albuminuria, in pregnant women, is very frequent compared with eclampsia; that, on the other hand, all eclampsies are not affected with albuminuria; that in many fatal cases the kidneys are found unaffected. The simple presence of albumen in the urine does not suffice to characterise the eclampsia as toxic. Very few of those suffering from Bright's disease are ever seized with convulsions. Eclampsia from septicæmic poisoning is very rare. The author gives the details of one case. In practice it is not always easy to distinguish between these three forms, perhaps because they are not always entirely distinct; still it is not difficult to discern which form prevails sufficiently to form a guide to treatment. This must vary with the cause. In the mechanical form, general and local depletion, cold to the head, cutaneous and drastic derivatives are distinctly indicated. As a general rule, the subtraction of blood is indicated in all cases which precede or accompany labour, but not in those following labour. The presence of albumen in the urine is not a contra-indication; on the contrary, it is often notably diminished by blood-letting, doubtless by the diminution of the renal stasis. In the reflex forms, anæsthetics are indicated—chloroform, ether, opiates; but, above all, chloral. In the toxic forms, the treatment must be guided by the symptoms. Bleeding is only exceptionally indicated, in sthenic cases. So with drastics, which, especially in the uræmic form, would be indicated *a priori*, to supplement the deficient renal function, but which in the greater number of cases cannot be employed. Equally rational would be the diaphoretic treatment, by subtracting from the blood the excrementitious principles and the excess of water, thus to obviate the cerebral oedema. One must not forget that jaborandi and pilocarpin, which have been especially recommended to this end, depress the heart's action, and, increas-

ing the secretion of mucus in the respiratory tract, promote suffocative phenomena by pulmonary oedema. Chloral is still indicated, in the greater number of these cases, to allay the nervous sensibility and to procure restorative sleep. If the symptoms of depression prevail, the treatment must be especially directed to sustain the vital power.

539. *Pedrinì on Ovarian Cyst cured by Injection of Wine.*—Dr. Eliodoro Pedrinì (*Gazz. Med. Ital. Lomb.*, Feb. 17) gives the details of this case. The patient (39) was seized, after a day's washing in cold water, with acute pain in the abdomen. A few days afterwards, a small movable lump was noticed in the left ovarian region. The lump steadily and slowly increased for fourteen months, when it suddenly became much larger, threatening to prove fatal by asphyxia from the pressure it caused. The lungs were congested, with diffused bronchial catarrhal sounds, and the lower limbs were oedematous. The patient was very emaciated. A large trocar was thrust in at the lower third of a line drawn from the umbilicus to the anterior inferior iliac spine; 72 litres of a serous citrine-coloured liquid were gradually withdrawn. A litre of white wine was then injected through the cannula, and allowed to remain for an hour. There was sharp reaction and fever, which for a week imperilled the patient's life. She, however, made a good recovery and regained entirely her former good health, with no sign of the return of the tumour (after six years).

G. D'ARCY ADAMS, M.D.

540. *Tolochinoff on a Case of Chronic Inversion of the Uterus, Cured by Means of a Colpeurynter.*—Professor N. F. Tolochinoff reports (*Vratcheb. Vedom.*, 1882, No. 522) the case of a woman, aged 32, in whom the womb became inverted during her last (sixth) labour, about six months previously. Repeated attempts at its reduction had been unsuccessful. The author found in the vagina a pear-shaped tumour, 5 centimètres long, which protruded beyond the cervix, and easily bled on touch. A Braun's colpeurynter was introduced and left, being removed only for a few minutes daily for its cleansing and for vaginal injections. On the eighth day, the tumour disappeared. The os, however, remained widely open (capable of admitting a forefinger, which easily penetrated up to the fundus) nearly three weeks, and then, under the influence of solution of perchloride of iron, gradually contracted.

541. *Stekloff on Vaginal Injections of Hot Water in Obstetrical and Gynaecological Practice.*—Like Drs. Lebedeff (see LONDON MEDICAL RECORD, May 1882, p. 200) and Glazunoff (*Vratch.*, 1881, No. 5, p. 79), the author speaks highly (*Vratch.*, 1882, No. 22) of the value of hot water injections in the treatment of uterine hæmorrhage of every description. He gives the notes of five cases in which he successfully used vaginal injections of three glassfuls of carbolised water at the temperature of 42° Reaum. (126° Fahr.). In two of the cases hæmorrhage was due to retention of portions of placenta, and ceased after two and three injections; the uterus having strongly contracted, and expelled the retained pieces, which, in spite of their remaining within the womb twenty-four and forty days respectively, were found fresh and inodorous, as in a similar case by Dr. Syromiatnikoff (LONDON MEDICAL RECORD, April 1882, p. 146). In a third case, a profuse hæmorrhage after the abortion in the sixth month was arrested by one hot injection; but, on the next day, it reappeared, though far less considerable.

Keeping in view the highly atonic state of the uterus and the patient's extreme weakness, the author applied alternate irrigation with hot and cold water (as it was recommended, among others, by Dr. C. Rothe), which checked the flooding within a few hours. In a fourth patient, who formerly had menstruated always regularly, and then contracted menorrhagia of sixteen days' standing (from a fright), a prolonged hot injection rapidly arrested the bleeding. Two injections stopped a severe hæmorrhage in a fifth case (miscarriage at the third month), after cold and ergot had failed.

542. *Rudoff on Fætal Ascites as a Cause of Absolute Obstruction in a Case of Labour.*—The author (*Vratch.*, 1882, No. 14) records a case similar to that published lately by Mrs. Krasina (see the LONDON MEDICAL RECORD, July 1882, p. 284). The patient was aged 26; her pregnancy (fourth) had been regular, and the labour had come on at full term. He first saw her about twenty-four hours after the beginning of labour, and after a midwife had already succeeded in tearing away the head and arms of the fœtus. The child's chest was down in the vagina, along the right oblique diameter, the enormously distended abdomen being tightly embraced by the tetanically contracted womb. Puncture having proved impossible (the author's trocar was too short), embryotomy was successfully performed. The puerperal period did not present any complications. V. IDELSON, M.D.

543. *Coates on Intravenous Injection of Fluids for Severe Hæmorrhage.*—Mr. W. Coates, in the *Lancet*, Dec. 1882, p. 1110, gives an account of two cases in which he used Mr. Jennings' siphon for intravenous injection; the hæmorrhage in both cases occurred a long time after delivery without any definite cause. In one case the saline alcoholic solution, recommended by Mr. Jennings (in the *Lancet*, Sept. 16), was used, and in the other twenty-two ounces of warm water, at temperature of 100° F., were injected. The result in both instances was very striking, the pulse improved, the hæmorrhage ceased, and the uterus slowly contracted.

RICHARD NEALE, M.D.

544. *Von Wahl on a Case of Ovariectomy during Pregnancy; Re-opening of Wound on Ninth Day, with Protrusion of Intestines: Recovery.*—On February 6, 1882, Professor Von Wahl performed ovariectomy on a married woman, aged 33, in the third month of pregnancy, at Dorpat. The cyst contained two quarts of a clear straw-coloured fluid; the pedicle was exceedingly broad, requiring ligature in three separate portions; a single ligature was then passed round the whole pedicle, and lastly the vessels in its outer border were secured separately. The abdominal wound was closed by silk threads in the usual manner, so that the opposing surfaces of peritoneum should be in thorough apposition. On the eighth day, the abdominal sutures were removed; the wound had healed perfectly; it was then covered with a single layer of wool, and held together by bands of strapping. Early on the next morning, the nurse observed that the wool was moist; and the patient complained of pain in the wound. She was, therefore, examined on the operating table, and placed under the influence of chloroform. On removing the dressings, the wound was found to be completely open in its whole extent, and severals coils of intestine, together with the lower part of the great omentum, were entangled in the wool, which adhered so closely that

its separation was a matter of extreme difficulty. After prolonged washing of the protruded parts with a warm solution of thymol, followed by hard sponging, all the coarser pellets of wool were washed off the surface of the intestine. A thin layer of fibrinous exudation had intimately blended with the fibres of wool that had come into contact with the intestines, forming a felted membrane that could not be removed. The edges of the wound appeared quite fresh, as though the first operation had been performed but a few hours. They were carefully united by sutures. Ten days later half of these were removed; the remainder were taken out on the twelfth day. Recovery was rapid, and the patient was safely delivered at full term. In this case the tumour and the pregnant uterus, together, were not so large as to distend the abdominal walls except in the hypogastric region; hence the abdominal muscles were less stretched and weakened than they would have been had the cyst attained greater proportions. Bruntzel and Von Wahl both find that, on this account, accidental re-opening of the abdominal wound is most common after the removal of the smallest ovarian tumours.

545. *Von Wahl on a Case of Resection of a Portion of Colon Adherent to a Malignant Dermoid Ovarian Tumour.*—In removing a large dermoid ovarian cyst from a woman, aged 26, Professor von Wahl, at the Dorpat Hospital, found that over four and a half inches of the ascending colon adhered very intimately to the surface of the cyst. The ovarian tumour was undergoing cancerous degeneration, not rare in dermoid cysts, and the portion of its wall that adhered to the large intestine was infiltrated with nodules of malignant deposit. Simple separation of the colon from the cyst would, even if practicable, have been unjustifiable; therefore Professor von Wahl decided on resection. The ascending colon could not be drawn forward, as the meso-colon was very short. The pedicle of the tumour was first secured, then all omental adhesions were separated. A clamp was then applied to the colon above and below the seat of adhesion. Each clamp had its teeth covered with gutta-percha tissue. The adherent segment was then cut away, and the ascending meso-colon was separated from the adherent segment of intestine. This proved to be an extremely difficult task, for the vessels of that serous fold were much enlarged; but, the sponges being carefully applied over the adjacent viscera, no blood escaped into the peritoneal cavity. The tumour was now removed: there were no pelvic adhesions. Thirteen silk threads were then passed through the serous and muscular coats of the cut edges of the colon as far as the mucous membrane, and a second row of ten higher sutures was made to transfix the serous coat alone. On drawing the sutures close together, the apposition of the severed edges of the colon was found to be complete. So well, says Dr. von Wahl, had the peritoneal cavity been guarded by sponges, that a final sponging was dispensed with as superfluous. The highest temperature during convalescence was 101.2° on the second day. The bowels acted freely on the eighth day; on the tenth, the abdominal sutures were removed. Unfortunately the malignant disease recurred within a month. Dr. von Wahl attributes the success of the resection in this otherwise unfavourable case to the employment of silk instead of catgut, and to the application of a double row of sutures on the Gussenbauer-Czerny principle.

Three years since, the same operator removed over two inches of the transverse meso-colon for the cure of an artificial anus. This had been established six weeks previously by removing a portion of gangrenous colon, in an operation for strangulated inguinal hernia, and securing the cut edges of intestine to the margin of the wound. In the second operation, the cut edges of the intestine were brought together by a single row of fine catgut sutures. Symptoms of peritonitis appeared on the second day, and the patient died on the third. At the necropsy, extravasation of faeces was discovered. This fatal complication was due to the loosening of two of the sutures, so that the cut edges of the intestine gaped to the extent of one quarter of an inch.

ALBAN DORAN.

546. *Bertram on Laparotomy for Removal of Tumours of the Fallopian Tubes.*—Dr. R. Bertram (*Berliner Klin. Wochenschr.*, Jan. 22 and 29) relates, in very considerable detail, a series of eight cases in which tumours of the Fallopian tubes had been removed by an operation similar to that of ovariectomy. In five of these cases the disease was dropsy of the tube, three single and two double. In two cases the tumours were abscesses, and in one a hæmatocele. The ages of the patients were within a range of from twenty to forty years, i.e. during the child-bearing period. Of the eight cases six were married women. All had complained of pain in the ovarian region, but this was not sufficiently definite in its character to aid diagnosis. The occurrence of abortion, or the existence of sterility, might either precede or follow the disease of the tubes. Of the eight cases, five, or more than half the number, were sterile; one had borne a child ten years previously, but had not since become pregnant. The origin of these tumours may be assigned to local injury, excess in venery, abortions, and causes unknown. Hæmorrhage resulting from a blow might have given rise to circumscribed peritonitis, closure of the fibrinated extremity, and the occlusion of pus within the tubes. The influence of gonorrhœa has been supposed to have been the cause in some cases, by the induction of endometritis and the extension of inflammation to the broad ligament or adjacent structures. Thin abdominal walls are favourable for the determination of diagnosis, if the healthy ovary can be detected and distinguished from the sausage-shaped tumour of the tube, when a combined vaginal and rectal examination is made. The tumour may have existed long without its presence being suspected. If of considerable size, it may burst and cause fatal peritonitis; if small, it may remain as a simple hæmatocele and become adherent to the bladder or adjacent structures. With reference to treatment, Dr. Bertram suggests the possibility of emptying the tube by catheterisation through the uterus; puncture by the vagina or rectum, and lastly, in favourable cases, laparotomy. This operation is to be performed much in the same manner, with the same precautions and care, as in the case of ovariectomy. The contents of the tube may be evacuated, or it may be wholly extirpated. It may be required, in consequence of adhesions, to remove an ovary before operating upon the Fallopian tube.

W. B. KESTEVEN, M.D.

547. *Ashton on the Treatment of Placenta Prævia.* Mr. Ashton proposes to substitute the use of the long forceps for turning when operative interference is necessary, and when the head presents; when the placenta prævia is partial; in those cases where it

completely covers the os uteri at the beginning of labour, but when, after some progress has been made, it only partially does so; or when exhaustion is present either from the previous ill-health of the mother, or from loss of blood. Version is indicated where the cervical attachment of the placenta is too extensive to allow of the application of the forceps; where there is mal-presentation of the child; and where there is contraction of the pelvis or any condition present which usually indicates the operation. Craniotomy may be called for when exhaustion is great, or when the case is complicated with those conditions which generally render it necessary.

548. *Brock on Obstinate Vomiting in Pregnancy.*—Dr. Brock, after discussing the various theories as to the causation of obstinate vomiting in pregnancy, arrives at the following conclusions. 1. Obstinate vomiting occurs in multiparae where the uterine tissues are lax, and where the os is soft, easily dilatable, and even patent enough to admit the tips of two fingers. This causes him to reject the theory held by Bretonneau and Barnes. 2. Obstinate vomiting is absent in the majority of cases where there is a rigid state of the os, and where one would almost expect it invariably to be present, if the cause were that assigned by Dr. Barnes. 3. Obstinate vomiting is often absent in flexions and distortions of the uterus, and often present where there are no flexions or distortions. This would not be likely if Dr. Graily Hewitt's theory were true. 4. Obstinate vomiting is often absent in inflammatory conditions of the uterus, and present when there are no inflammatory conditions. This ought not to be the case if Dr. Bennett's theory were correct. 5. Because he believes a parallel condition is to be seen in other affections clearly influenced by the individual's neurotic constitution; for instance, obstinate seasickness, the occasional vomiting that occurs in pseudocyesis, the proneness to convulsions in certain children whenever ill; or, to take a specific case, the vomiting simulating the obstinate vomiting of pregnancy in a non-pregnant woman in whom the uterus was normal. 6. Because there is no definite line to be drawn between the ordinary cases of sickness in pregnancy and the more severe cases. He has found it associated with intermittent albuminuria. He believes the obstinate vomiting in pregnancy to depend on the idiosyncrasy of the patient.

549. *Herrick on an Operation for Closing Douglas's Sac.*—This operation is just what its name implies, and is accomplished by denudation of the whole or part, as required, of the *cul-de-sac* and the adjacent uterine neck, after which they are united by silver wire sutures. The conditions calling for this operation are cases of uterine flexion and version accompanied with voluminous vagina, especially in its upper portion; and while most cases of either flexion or version can be remedied by a proper fitting pessary, there are cases, as every one knows, which are only benefited while the support is worn, for the simple reason that the vaginal canal is so large and its walls so weak that it cannot afford the support nature intended it should, and, as soon as the artificial support is removed, the uterus, like a house with its underpinning taken away, falls over one way or the other. Dr. Herrick has performed the operation with successful results in four cases. He leaves the finding of an appropriate name to some other gynaecologist.

550. *Jorisenne on a New Sign of Pregnancy.*—Jorisenne finds that change of posture from standing

to sitting or lying down, produces a variation of from ten to twenty beats in the radial pulse in non-pregnant women. In pregnant women there is no change in the frequency of the pulse whatever position the patient may be in. The importance of this sign, in the opinion of M. Jorisenne, is that it enables a diagnosis of pregnancy to be made as early as the first month, when there may be no other sign or symptom present.

551. *Obstetrical on the Management of Breech Presentations.*—The management of breech presentation with the legs extended during pregnancy consists on leaving the presentation alone when the breech is engaged in the pelvis. When the pelvis is not engaged, an endeavour must be made to affect version by external manipulation, and then Pinard's entotic binder may be applied to maintain the head in its proper position. When labour has set in, three conditions are to be distinguished. 1. When the breech is at the upper strait; 2, when it is more or less engaged in the pelvis; 3, when it is at the lower strait. When the breech is at the superior strait and the membranes are not ruptured; as soon as the dilatation is complete the membranes should be ruptured, a foot drawn down, and the case is allowed to wait. If the cord prolapses, or if it is compressed, or the breech does not engage, the extraction must be proceeded with. If the membranes are ruptured, and it is necessary to interfere, an attempt must be made to bring down a foot. If a foot be brought down, the delivery can be made. If the foot can not be brought down, the forceps should be applied. If the forceps slip, delivery is to be effected by means of a tape passed over the groin. The forceps should, as far as possible, be applied over the limbs of the foetus and not over the pelvis. When the breech is more or less engaged in the pelvis, or is at the lower strait, the forceps should be applied. If this fails, a tape may be applied over the groin. When the child is dead or putrid, and the above means fail, the cephalotribe or cranioclast may be used.

552. *Wolczynsky on Ascites as an Obstruction to Labour.*—The foetus was at the eighth month, and the labour came to a standstill after the head and thorax were born. The midwife then pulled the head off by her efforts to deliver. Dr. Wolczynsky passed his hand through the thorax, perforated the diaphragm, and gave exit to a large quantity of ascitic fluid. The rest of the delivery was then easily accomplished. The urethra, right ureter, and kidney were found to be absent. The left kidney was in a condition of hydronephrosis.

FANCOURT BARNES, M.D.

553. *Garrigues on Gastro-elytrotomy, with special reference to Porro's Operation.*—Dr. H. J. Garrigues, in additional remarks on the above subject, to those published in his monograph in 1878 (*Amer. Jour. of Obstet. and Dis. of Women and Children*, Jan. 1883), arrives at the following conclusions. 1. Dr. Thomas's method of gastro-elytrotomy has been performed eight times. One-half of the mothers recovered. All of the children survived, except two, who had died long before the operation was done. 2. The operation may be performed with many antiseptic precautions. 3. Porro's operation has given less good results, and Müller's no better than Thomas's. 4. The danger, especially as regards hæmorrhage, peritonitis, and septicæmia, are greater in the Porro-Müller operations. 5. The intraperitoneal treatment of the stump, in Porro's

operation, carried out in five cases, has four times resulted in death. 6. One advantage in the Porro-Müller operation is the possibility of operating before the commencement of labour. 7. Gastro-elytrotomy is less repulsive to the mind of the patient, less difficult of execution, and can be performed with less assistance. 8. It does not sterilise the woman. 9. In country practice, the old-fashioned Cæsarian operation will in most cases be preferable to all its substitutes. 10. Thomas's operation can be performed on the left side as well as on the right. 11. The ureters remain below the incision. 12. All those who have performed gastro-elytrotomy on the living subject or on the cadaver recommend it.

554. *Murphy on the Effects of Tracheloraphy on Fertility and Parturition.*—Dr. P. J. Murphy, in a paper on the above subject (*Amer. Jour. of Obstet. and Dis. of Women and Children*, Jan. 1883), deduces the following conclusions, after a study of statistics gathered from literature in the surgeon-general's office. 1. Repair of laceration of the cervix uteri is usually followed by sterility. 2. The character of the labour is usually severe and protracted, and, in a large percentage, laceration occurs a second time. 3. In order to ascertain the benefit of surgical interference in such cases, an examination should be instituted several months after the operation to determine the condition of the cervical canal, and, if conception have taken place, the condition of the cervix following delivery.

PATHOLOGY.

RECENT PAPERS.

555. CHIARI. The Bacilli of Tuberculosis.
 556. ROSENSTEIN.—Bacilli in the Urine. (*Centralbl. für die Med. Wiss.*, Feb. 3.)
 557. PFEIFFER.—Tubercle-Bacilli. (*Berliner Klin. Wochens.*, No. 3, 1883.)
 558. MORISON.—Bacilli in Hard and Soft Chancres. (*Maryland Med. Jour.*, Jan. 1, 1883.)
 559. SCHMIDT and HIRSCHFELDER.—The Tubercle-Bacillus. (*New York Med. Record*, Jan. 6.)
 560. BOUCHARD, CAPITAN, and CHARRIAS.—The Bacillus of Glanders. (*Jour. de Méd. et de Chir. Prat.*, Feb. 1883.)
 561. ISRAEL.—The Bacilli of Farcy. (*Berliner Klin. Wochens.*, March 12.)
 562. SANGALLI.—Bacteria of Anthrax in the Fœtus of the Cow. (*Riv. Ist. Lomb. di Scienze e Lettere*, Dec. 18, 1882.)
 563. KIENER.—The Relation of Tubercle to Inflammation. (*Gaz. Méd. de Paris*, Feb. 1883.)
 564. LIVINGSTON.—Double Hydromephorosis from Abnormal Bending of the Ureters. (*New York Med. Record*, March 26.)

ART. 555.—Chiari on the Bacilli of Tuberculosis. Professor Chiari, of Prague, in an address to the Central Union of German Physicians in Bohemia, traces the gradual development of the theory of the infective nature of tuberculosis from Buhl's writings in 1857 to the discovery of a special micro-organism by Koch in 1882. The constant occurrence of old cheesy masses in cases of acute miliary tuberculosis suggested to Professor Buhl that the acute disease must be the direct result of infection from the previously existing centre. In 1868, Villemin artificially produced tubercular disease by inoculation in various ways. Many authorities—Davaigne, Recklinghausen, Klebs, and Billroth—contributed to the view that the infective material would be found

to be of bacterial nature. Klebs, in 1877, delivered an address in Munich, in which he indicated as the cause of tuberculosis certain tiny corpuscular and rod-shaped bodies, and declared that he had invariably found these bodies in tubercle, that he had been able to cultivate them, and that he had obtained positive results by inoculation of them. These observations were, however, not confirmed. Until the labours of Koch and Weigert had succeeded in developing a trustworthy anatomical classification of the bacteria, the way was not clear for the discovery, by the former, of the bacillus of tubercle, which he was able to demonstrate in March 1882 at Berlin. Discussing the various methods hitherto proposed for staining the bacilli, Dr. Chiari points out the superiority of Ehrlich's method, both from its simplicity and its certainty. Having used it largely in experiments to search for bacilli in other than tuberculous tissues and fluids, he has never found that any other micro-organism than the bacillus of tubercle has been stained by its means. Especially in cases where the clinical aspect of the disease pointed to its tubercular nature, his results were invariably positive, and Dr. Chiari was led to the impression that the number of bacilli present in the sputa was in direct proportion to the severity of the disease, and that the number of spores borne by the bacilli formed a direct indication of the rapidity of the course of the tubercular disease in the lungs. These views are in complete accord with those of Dr. Heron, lately recorded, and of Drs. Balmer and Fræntzel in Germany.

E. CLIFFORD BEALE, M.B.

556. *Rosenstein on Bacilli in the Urine.*—Although bacilli have been found in the renal pelvis, they have not been observed hitherto in the urine of the living being. This void Dr. Rosenstein is able to fill from a case under his own observation (*Centralbl. für die Med. Wiss.*). A man, aged 37, of a healthy family, and previously in the enjoyment of good health, had for four years suffered pain in micturition, both before and after voiding urine. Two years since he first noticed hardness of the epididymis on the left side, and soon afterwards on both sides. The testicles were unaffected, as were also the inguinal glands, and there were no signs of pulmonary disease. Micturition was frequent; the specific gravity of the urine was 1012 to 1018; the urine was acid and contained albumen. Turbid when first passed, it exhibited numerous white flocculi about the size of a pin's head. On being left to stand, a thick greyish-white sediment was deposited, consisting mainly of pus, and a few blood-corpuscles. The white flocculi mentioned consisted of masses rich in tubercle-bacilli, which were distinguishable by staining from bacteria of putrescence.

W. B. KESTEVEN, M.D.

557. *Pfeiffer on Tubercle-Bacilli.*—Pfeiffer (*Berliner Klin. Wochens.*, No. 3, 1883) thinks that the examination of sputa for bacilli is of value in every-day practice, if the examination be continued over three days before a negative answer is given. He recommends Long's suggestion to render the sputa fluid with a weak solution of caustic potash, and to select for examination certain greyish compact streaks, which are especially the seat of the bacilli. He uses Ehrlich's method; but the cover-slips were dried in an oven instead of being passed through a gas flame. Gentian violet was used as a stain, and the cover-slips remained in it for twenty-four hours. The back-ground stain was Bismarck brown.

558. *Morison on the Bacilli in Hard and Soft Chancres*.—Dr. R. M. Morison (*Maryland Med. Jour.*, Jan. 1, 1883), working in Neumann's laboratory, and using Ehrlich's method, has found bacilli in hard chancres and syphilitic papules, and in the secretion from them. He also found bacilli in the secretion of soft chancres; but these were quite different, much longer and thinner, more like those of splenic fever, but much smaller.

559. *Schmidt and Hirschfelder on the Tubercle Bacillus*.—Dr. H. W. Schmidt, of New Orleans, believed he had proved that Koch's bacilli are merely fat-crystals, but Dr. Hirschfelder, of San Francisco (*New York Med. Rec.*, Jan. 6, 1883), has found that, after placing the cover-glass in boiling ether and washing thoroughly with fresh ether, the bacilli could be readily shown by Ehrlich's method.

560. *Bouchard and others on the Bacillus of Glanders*.—MM. Bouchard, Capitan, and Charrias (*Jour. de Méd. et de Chir. Prat.*, Feb. 1883) have discovered a micro-organism in glanders which was cultivated to the eighth culture, when inoculation produced the disease as exactly as the original liquid from which it was taken. They do not hesitate to accept it as the specific organism with which the morbid power of the disease is associated.

ROBERT SAUNDY, M.D.

561. *Israel on the Bacilli of Farcy*.—Dr. O. Israel, (*Berliner Klin. Wochenschr.*, March 12) through the kindness of Prof. Dieckerhoff, had the opportunity of examining portions of lung, from freshly killed horses, containing farcy deposits. From coagulated serum of these Dr. Israel succeeded in developing two forms of fungoid growths; one, the smaller, proved to be inert; while, from the larger bacilli, Dr. Israel succeeded in inoculating puppies with farcy. These bacilli, though less slender, had the appearance of tubercle-bacilli, but were thicker, and of about the same length. Dr. Israel inoculated puppies with bacilli of the fifth and sixth generations. Two of the inoculated animals presented the typical ulcerations of the air-passages. The inoculation had been effected between the scapulae. One animal died without the characteristic phenomena, the other lived. The bacilli that were used were derived from the dried preparation of the lung deposits. The cultivation of the farcy *contagium* presented no difficulty, but material was for some time wanting; this was at last obtained from a living animal, the subject of boils. The contents of these were five times evacuated; but, when inoculated, gave no results. Microscopical investigation found abundance of fine nuclei in the tough puriform matter, which were looked upon as spores of bacilli. These organisms were examined by carefully employing aniline and methyl-violet colouring. The cutaneous abscesses of the upper lip from horses, suffering chronic farcy, contained numerous micrococci which also are observed in phthisis, and possibly other microscopical organisms may be found in farcy. The bacilli of farcy possess a theoretical interest, in their relation to allied parasitic disorders, of which they form a new link, and offer a new agency toward the knowledge of the spread of disease in the affected organs.

W. B. KESTEVEN, M.D.

562. *Sangalli on Bacteria of Anthrax in the Fetus of a Cow*.—Professor Sangalli reports (*Reale Istituto Lombardo di Scienze e Lettere*, Dec. 14, 1882) the discovery by himself and Dr. Nosotti of an important fact not hitherto observed in the history

of bovine anthrax; a fact which proves the transmission of this disease from the infected cow to the fetus, or at least the penetration and development of the bacterium of carbuncle in the fetus by way of the blood, the placenta not serving as a filter for its depuration, as hitherto supposed. Towards the end of last year, anthrax prevailed with some intensity in a large dairy farm near Pavia. There was no doubt of the nature of the disease. The first examination of a heifer showed quantities of bacteria, motionless, slender, almost transparent, cylindrical, straight, a few curved, 0.05 to 0.1 millimetre in length. A pregnant cow died; the necropsy, twelve hours after death, revealed many extravasations of blood on the surface of the internal organs, liver, spleen, kidneys (subcapsular), &c., and on the surface of the lungs (subpleural). There were many small extravasations in the primitive fibres of the voluntary muscles. In the blood of all these extravasations, many bacteria were found, and also in the myocardium and in the enlarged mesenteric glands. The spleen was twice the normal size, and more bacteria and micrococci were found in the blood of the subcapsular extravasations than elsewhere. Many were also found in the blood of the vena cava. In the uterus was found a fetus of about four months' development; parts of all its internal organs were carefully examined. Bacilli were only found in the liver and spleen; in the liver was an abundance of short bacteria and spores; in the spleen, some short bacteria and numerous micrococci. On the day following, the examination was repeated; the bacteria and micrococci had diminished in number, and on the next day had disappeared. In their place were found the bacteria of putrefaction. A rabbit was injected in the skin of the thorax with half a centimetre of the blood of the cow, and 5 centimetres of a solution of sodium chloride. The animal died in three days; the tissues, viscera, and even the marrow of the bones, were found swarming with the same bacteria. With the blood of this rabbit, others were inoculated with the same result. A proof experiment was at the same time made with the blood of an ox. The rabbit died after six days, but no bacilli were found in the organs or in the blood. Dr. Sangalli examined the water of the drinking troughs, the roots of the grass from the graves of several heifers which had died the year before of anthrax, and the earth itself, but neither with the microscope nor by inoculation of rabbits could he find anything in confirmation of Pasteur's doctrine of the genesis of charbon.

G. D'ARCY ADAMS, M.D.

563. *Kiener on the Relation of Tubercle to Inflammation*.—Kiener (*Gaz. Méd. de Paris*, Feb. 11, 1883) and Poulet, in working at tubercular osteitis, arrive at the conclusion that primary tubercle causes little inflammatory disturbance in its neighbourhood, while secondary tubercle shows this to a very marked degree. It should therefore be credited, not so much to the effect of the virus as to diminution of resistance of the tissues from heredity or debilitating cause, or to some other disease not tubercle, but acting in concert with it, such as the influence of injuries, catarrh, and suppuration.

ROBERT SAUNDY, M.D.

564. *Livingston on Double Hydronephrosis from Abnormal Bending of the Ureters*.—At a recent meeting of the New York Pathological Society (*New York Med. Record*, March 24) Dr. Beverley Livingston showed specimens from the body of a child which had died five weeks after birth with suppuration of

the knee. The pelves of both kidneys were greatly dilated, and the ureters were found to be bent twice on themselves. On the left side, there was constriction at the second curve.

OTOLOGY.

RECENT PAPERS.

565. SEELY, W.—Some General Remarks on Otolology. (*Cincinnati Lancet and Clinic*, July 1882; and *Annal. des Mal. de l'Oreille, du Larynx, &c.*, Dec. 1882.)

566. PURICELLI.—A Simple Method of Applying Medicated Solutions to the Nasal Mucous Membrane, or of driving them into the Middle Ear. (*Berlin. Klin. Wochens.*, 1882, and *Medic.-Chirurg. Rundschau*.)

567. CALMETTES.—A little-known Complication of Mumps. (*France Médicale*, 1882, Vol. ii. No. 8, and *Jour. de Méd. de Paris*.)

568. RATTTEL, J. A. ADJUTOR.—Notes on History and Bibliography. Bartholomæus, Eustachius, Sancto-severinus. (*Annal. des Mal. de l'Oreille, du Larynx, &c.*, Nov. 1882.)

569. DE LACHARRIÈRE, L.—Catheterism of the Eustachian Tube, a New Series of Instruments. (*Annal. des Mal. de l'Oreille, du Larynx, &c.*, May 1882.)

570. BOUDET.—Determination of the Auditory Sensibility. (*Ibid.*)

571. POMEROY, O. D.—The Use of Soft India-rubber Drainage-tubes in Chronic Suppurative Inflammation of the Tympanum, with Narrowing or Closure of the Meatus Externus. (*Trans. of the American Otolological Society*, Vol. iii., part. 1, 1882.)

572. MATHEWSON, A.—A case of Abscess of Cerebellum following Otitis Media months after apparent cure. (*Ibid.*)

573. MERRILL, C. S.—A Case of Acute Middle Ear Inflammation with Death on the Fourth Day, from Extension of the Disease to the Brain. (*Ibid.*)

574. MCKAY, REID J.—Aural Polypus, Facial Paralysis, Mastoiditis, and Chronic Meningitis, with Recovery from the two latter. (*Ibid.*)

575. HOLT, E. E.—Boiler-maker's Deafness and Hearing in a Noise. (*Ibid.*)

576. THEOBALD, SAMUEL.—Complete Closure of both Auditory Canals following Chronic Otorrhœa. (*Ibid.*)

577. KNAPP, H.—The Treatment of Aural Polypi. (*Ibid.*)

578. BRANDEIS, R. C.—Exhaustion versus Inflation. (*Ibid.*)

579. FRONSTEIN, M. A.—A Case of Syphilitic Affection of the Internal Ear. (*Vracheb. Vedom.*, 1882, No. 16, pp. 3145-7, and No. 17, pp. 3157-61.)

580. SPAMER.—The Functions of the Semicircular Canals. (*Pflüger's Archiv*, Band xxv.)

581. MOOS AND STEINBRÜGGE.—Absence of the Labyrinth from both Ears in a Deaf Mute. (*Zeitschr. für Ohrenheilkunde*, Band xi., and *Centralbl. für die Med. Wiss.*, Dec. 9, 1882.)

582. KATZ.—Cholesteatoma of the Temporal Bone; Abscess of Cerebellum. (*Berliner Klin. Wochens.*, Jan. 13.)

ART. 565. *Seely on Otolology in General*.—Dr. Seely (*Annal. des Mal. de l'Oreille, du Larynx, &c.*, Dec. 1882) considers that the object of puncturing the membrana tympani is not to evacuate morbid products in the tympanic cavity, but only to diminish the pressure exerted on the membrane. The author has himself never performed this operation, because the intratympanic pressure could always be otherwise relieved. He extols boracic acid and alcohol in suppurative otitis.

566. *Puricelli on the Application of Medicated Fluids to the Nasal Mucous Membrane and Middle Ear*.—The methods recommended by the author (*Berlin. Klin. Wochens.*, 1882, No. 8) are as follows. During intonation of the vowel 'a' (German), the solution is poured or injected into the nostrils, respiration taking place through the widely opened mouth. The patient's head is bent backwards. If the fluid be introduced whilst the patient attempts the forcible pronunciation of 'r', and be followed up by inflation, the liquid is driven into the middle ears.

567. *Calmettes on Deafness from Mumps*.—Dr. Calmettes (*France Méd.*, 1882, Vol. ii., No. 8) records the case of a girl, 6 years old and in good health, who, being attacked with mumps in the course of an epidemic, became almost completely deaf nearly simultaneously with the appearance of the swellings, which seem not to have been so great as usual. There was no pain, discharge, or noise. After eight months there was no change, but the patient could still hear a very loud voice. The case is similar to those described by Buck and others.

568. *Rattel on the old Masters of Otolology*.—Dr. J. A. Rattel gives (*Annal. des Mal. de l'Oreille, du Larynx, &c.*, Nov. 1882) a very interesting account of the life and works of Eustachius, who flourished about 300 years ago.

569. *De Lacharrière on Catheterism of the Eustachian Tube*.—Dr. de Lacharrière (*Annal. des Mal. de l'Oreille, du Larynx, &c.*, May 1882) recommends eight catheters, which, as regards calibre, run in pairs, but have each a different curve. They are bulbous at the distal end, and vary in diameter from $1\frac{6}{10}$ millimètres to $2\frac{7}{10}$ millimètres. A still larger size is employed for applying caustic solutions to the Eustachian orifice.

571. *Pomeroy on the Use of Soft India-rubber Drainage-tubes in Chronic Suppurative Inflammation of the Tympanum, with Narrowing of the Meatus*.—Dr. O. D. Pomeroy (*Trans. of the American Otolological Society*, July 1882), having failed by means of incisions to relieve narrowing or closure of the meatus, which he has frequently observed in chronic suppurative inflammation of the middle ear in young children, has resorted to soft India-rubber drainage-tubes with very good results. When there is much contraction a small-sized tubing (2 or 3 lines in diameter) is first used, and after a few days or weeks tubes of larger sizes are employed. The method of introduction is as follows. A stiff wire is passed into the tube, and caught in the tube near its extremity; it is then pushed forcibly onwards, until the India-rubber tube is so stretched that its diameter is scarcely larger than that of the wire itself. The tube thus stretched on the wire is gently pushed into the meatus, until the tympanum or the remains of the membrane are reached; then, with the wire still in position, the tube should no longer be held, when by its elasticity it will tend to resume its normal size and draw itself into the ear. The wire is now withdrawn, and the tube cut off at the base of the concha. When the canal is larger, the tube may be inserted by simply passing a probe through it, or without any stiffening at all. The tube is preferably of the soft black or red variety; and, in order to protect the walls of the meatus from the ichorous discharge, the sides of the tube are not perforated. By the elastic pressure of the tube, not only is the boggy swelling of the meatus reduced, but granulations or polypi in the walls of the canal

are caused to disappear. The ear may be thoroughly cleaned by simply syringing through the tube. The author gives short notes of seven cases, in which this method was employed with advantage.

572. *Mathewson on Abscess of the Cerebellum following Otitis Media months after Apparent Cure.*—Dr. Mathewson (*Ibid.*) relates the case of a girl, aged 11 years, who was brought to him on Sept. 12, 1880, with purulent discharge from the left auditory canal, which was filled with a polypoid mass; an opening over the mastoid process surrounded by exuberant granulations, and facial paralysis. There was dead bone in the mastoid. Under treatment, the discharge from the middle ear ceased, the perforation in the tympanic membrane closed, as did the mastoid opening, after the carious bone had been completely removed by applications of sulphuric acid. The facial paralysis disappeared, and the patient was discharged about Dec. 1, 1880. The hearing had risen to ten feet for ordinary conversation. On Feb. 26, 1881, she was attacked with vomiting, headache, and other symptoms, apparently due to some gastric or hepatic derangement. As these symptoms did not yield to treatment, the ear was examined and found, as before, apparently free from disease, as was also the mastoid bone. The hearing, as before, was ten feet for conversation. She had no pain in the ear; and, though there was at times headache, it was not of an agonising character. The ophthalmoscope showed no swelling of the optic nerve-disc, and the retinal vessels were not tortuous, though there was a 'peculiar dark colour, with some dilatation of the retinal veins,' which, the author says, he shall in future regard with suspicion. On March 16 she died, after a brief convulsion. Necropsy on the following day showed the meninges injected, adhesions at points over the petrous bone, and some small amount of pus under the dura, over the tegmen tympani, and in the sheath of the fifth pair; and an abscess containing about an ounce of fetid pus in the left lobe of the cerebellum. There was no positive sign of disease of the bone or the soft parts of the ear or mastoid, except a possible softening of the tegmen tympani. In the ensuing discussion, one of the most interesting points touched on was the value of ophthalmoscopic examination in cases of suppuration of the middle ear. Dr. Kipp, since the publication of his paper on this subject, had seen several cases in which double optic neuritis was present, and, as far as he remembered, they were all fatal, perforation of the mastoid having been refused. Dr. Knapp had found the concurrence of optic neuritis with severe otitis media purulenta of rare occurrence, but in some cases it was very marked and important, as in cases of acute suppuration with internal mastoiditis. In these cases it was more pronounced in the eye of the same side than in the other, and after opening the mastoid the retrogression of the optic neuritis went *pari passu* with the progress of the recovery from the ear-disease.

574. *McKay on Chronic Meningitis from Ear-Disease with Recovery from the former.*—In this case (*Ibid.*), the patient, a man aged 22, who was suffering from chronic meningitis, consequent on aural polypus, recovered from the former under the administration of minute doses of calomel (gr. 1-10th) every few hours, until slight pyalism was produced. There were well-marked optic neuritis on the left side and considerable congestion of the right optic disc. The neuritis gradually subsided under treatment.

575. *Holt on Boiler-maker's Deafness and Hearing in a Noise.*—Dr. Holt (*Ibid.*), as the result of the careful examination of forty boiler-makers, finds: (1) that all engaged in this occupation become more or less deaf, the degree and length of time elapsing before this occurs depending somewhat upon the tendency of the middle ear to take on catarrhal inflammation; and (2) that the deafness and the condition in which the organ of hearing is found do not differ materially from that of chronic catarrhal otitis media, since the deafness is due to a similar cause, and is owing much more to a defect in the conducting apparatus of the ear than to the perceptive part of the same organ; the exciting cause of the deafness being traceable to the constant agitation of the joints of the ossicles, thereby exciting inflammation of these structures and producing more or less ankylosis of them, particularly of the stapes. In regard to hearing better in a noise (the so-called paracusis Willisii) the author is not aware that any careful investigation has ever been made to ascertain whether a noise really improves the hearing power of certain individuals. He is, therefore, evidently unacquainted with Politzer's observations on the subject (see his *Lehrbuch der Ohrenheilkunde*, Vol. i., p. 233), from which he ascertained that this phenomenon really occurred. Dr. Holt, on the contrary, found that a noise never improved the hearing power in any case that had come under his observation.

576. *Theobald on Closure of both External Auditory Canals, following Chronic Otorrhœa.*—Dr. S. Theobald (*Ibid.*) reports a case in which on each side, instead of the normal auditory canal, there was a *cul-de-sac* measuring 2 centimetres in depth upon the right side, and 1.7 centimetres on the left. The bottom of each *cul-de-sac* was covered with skin continuous with, and similar to, that lining the outer portion of the meatus, and presenting to the probe the unyielding resistance of a bony septum. The patient was not profoundly deaf, but could understand all that was said to her if addressed in somewhat loud tones. When four years old she had had scarlatina, which left her with a purulent discharge from each ear.

577. *Knapp and others on the Treatment of Aural Polypi.*—Dr. Knapp (*Ibid.*), judging by analogy from the growth of granulations on the stump of a tendon after operations for squint, considers that the pedicle of an aural polypus gradually becomes more and more constricted as the polypus grows, thus rendering the removal of the larger tumours more easy and satisfactory than that of small ones with a larger basis. He speaks in favour of avulsion with forceps, but does not remove before a pedicle is formed. He uses, in order of frequency, Hinton's forceps, Wilde's or Blake's snare, Politzer's ring-knife, and O. Wolf's sharp spoon. Small polypi or the roots of large ones he treats with alcohol and boric acid. In the discussion following on the reading of this paper, Dr. Theobald remarked that a short time before, in removing a polypus by avulsion, he had pulled out the malleus and a portion of the membrane, but without any serious consequences resulting. Dr. Pomeroy preferred avulsion with forceps. Dr. John Green also recommended avulsion in proper cases and with reasonable precautions, and spoke highly of the careful application of chromic acid. Dr. Kipp cautioned against too frequent removal of granulations, as liable to set up inflammation. Dr. Brandeis was in favour of applications of the galvanic

cautery, although his experience of this method was limited to two cases. Dr. H. D. Noyes thought that blowing boracic acid into the ear did about as little good as if it were blown into the mouth. He was in the habit of introducing it through a quill, ramming it down with a piston. For polypi attached to the tympanum, he thought avulsion was not proper. He had not met with much success with alcohol. Dr. Prout had likewise obtained little satisfaction from alcohol. Dr. W. W. Seely was not much in the habit of removing polypi, especially in children, unless they were distinctly pedunculated; for the restlessness of the child and the pain caused by the operation made it almost impossible to do so. He resorted more commonly to chronic acid, which he introduced in crystal on a probe wrapped in cotton. He thought that boracic acid acted by the pressure which it exerted. Dr. Orne Green preferred the snare. Within the previous month he had seen as many as five polypoid growths arising, as far as could be told, directly from the ossicles. Dr. Knapp, in replying, said that in recommending small polypi to be let alone, treating them only with mild remedies, he did so not alone on theoretical grounds, but from a good deal of experience.

578. *Brandeis on Exhaustion versus Inflation.*—Dr. Brandeis (*Ibid.*) brings forward the drawbacks of inflation, especially the increase of pressure on the foot-plate of the stapes which it is apt to produce, and recommends the systematic employment of suction by means of an exhausting syringe, attached to an ordinary Siegle's speculum. As soon as the patient experiences the slightest pain, the exhaustion should be stopped. The author not only employs it in chronic cases of disease of the middle ear, but also for the removal of inspissated cerumen, where the force of the current of water gives rise to unpleasant sensations.

E. CRESSWELL BABER, M.B.

579. *Fronstein on a Case of Syphilitic Affection of the Internal Ear.*—Dr. M. A. Fronstein gives (*Vratchb. Vedom.*, 1882, Nos. 16 and 17) a very detailed account of a case of syphilitic disease of the ear in a male patient, aged 40. It was at first localised in the middle ear, and caused sudden deafness and tinnitus aurium; it then also invaded the internal ear, producing sudden symptoms of Menière's disease. Mercurial inunctions and iodide of potassium brought, at the end of fifteen days, a very considerable improvement; the hearing distance increased from 0 to 21 feet; the vertigo and noises disappeared. The author, after this, lost sight of the patient. Dr. Fronstein thinks that the accumulation of cases like the above might bring to an end such disputes as that between Roosa (see the LONDON MEDICAL RECORD, May 1880, p. 204) and Sexton (*Ibid.*, Dec. 1879, p. 513).

V. IDELSON, M.D.

580. *Spamer on the Functions of the Semi-circular Canals.*—In a communication to the Berlin Academy of Sciences (Jan. 13, 1881), Dr. B. Baginsky relates experiments on the effects of injections into the middle ear of rabbits. He shows how the turning of the head and nystagmus occur when the fluid breaks through the fenestra rotunda into the sub-arachnoid space, and how, by injection at higher pressure, or of chemically active fluids, death ensues from inflammation of the neighbouring brain-substance. He seeks further to prove that all irregularity of movement consequent upon operations in the semi-circular canals is solely due to brain lesion. Dr.

Spamer (Pflüger's *Archiv*, Band xxv.) criticises this opinion. He says that the consequences of removal of the entire labyrinth must not be compared with those of localised injury to a canal, since permanent disturbance of equilibration is the result of excitation, while total destruction causes only a fugitive perturbation; he recalls the fact that the whole of the internal ear may be destroyed by inflammation without any symptoms of giddiness, and remarks that it is possible that in Dr. Baginsky's experiments a brief stage of excitation may have been overlooked. Nor does Spamer's experience agree with Baginsky's with regard to the collateral injuries inseparable from operations on the canals; he rejects as unsatisfactory all experiments in which there should have been hæmorrhage, superficial or deep, of the cerebellum, or medulla, or restiform bodies, &c. He agrees, however, with Baginsky in attributing rotation of the head to secondary inflammation of the cerebellum. He is opposed to the notion that the disturbances due to injury of a single canal can be due to mere escape of sub-arachnoid fluid, inasmuch as the falling tendency differs according to the canal injured, whereas it should be indifferent if it depended on escape of fluid by the aqueductus vestibuli. Also the disturbance is in proportion to the amount of membrane removed, not to the quantity of spilled lymph, and it is greater with, transverse than with longitudinal incision. These facts and also the action of chemical fluids on the uninjured membranous canals, and that of a heated point, can hardly be made to agree with Baginsky's supposition.

A. WALLER.

581. *Moos and Steinbrügge on Absence of the Labyrinth from both Ears in a Deaf-Mute.*—Messrs. Moos and Steinbrügge (*Zeitschr. für Ohrenheilkunde*, Band xi, and *Centrabl. für die Med. Wiss.*, Dec. 9) observed the above in the body of a deaf mute, aged thirty-five, who had died of phthisis. There was, moreover, no trace of cochlea. Examination of the auditory nerves showed that a portion of its fibres was normal in structure, whilst in others in the immediate neighbourhood the medullary matter was scanty, or altogether lost. There were an immense number of varicose enlargements. Independently of a great number of normal, and more than normal, broad fibres, which exhibited numerous varicosities, the authors found a great many non-medullated fibres, with numerous enlargements. The terminations of the nerve-fibres, accompanied by branches of the artery, passed into the bone, and could not be traced further.

W. B. KESTEVEN, M.D.

582. *Katz on Cholesteatoma of the Temporal Bone, with Abscess of the Cerebellum.*—A case of cholesteatoma of the temporal bone, without caries, in which death occurred from abscess of the cerebellum, is described by Dr. L. Katz, of Berlin, in the *Berliner Klin. Wochenschr.*, Jan. 13, 1883. Cases of cholesteatoma of the temporal bone belong to the class of diseases of the ear which, unfortunately, seldom afford evidence of their existence and nature during life-time. Thus in their early stages they are overlooked, unless by pressure on neighbouring structures they give rise to pain and deafness. Certain proof of the existence of the cholesteatoma is afforded at times by the coming away of small fragments of the growth spontaneously, or by injections. In the course of the last five years Dr. Katz has met with at least a dozen cases in which portions, of the size of a bean or prune, have been washed out by injection.

tions, frequently with immediate relief. The tumour does not originate in the bone as a new growth, but is occasioned by accumulation of the product of desquamation after inflammation of the middle ear, combined with polypoid growth. The case under consideration was that of a pianoforte-maker, thirty-eight years of age, who was said to have had a polypus removed from his left ear about four years previously, since which his hearing had been almost normal. In 1868 he had suffered from typhus, and in 1871 from small-pox, probably attended with some affection of the organs of hearing. In September last, he came under the care of Dr. Katz for severe pain in and profuse discharge from the ear. The entrance to the meatus was red and swollen, so that inspection of deeper parts was impracticable, each attempt being attended with a profuse flow of pus; this being absorbed by pledgets of lint, it became possible, after eight days, to get an imperfect view of the tympanum. A perforation, through which the handle of the malleus could be seen, was observable at the upper part of that membrane. Pressure on the mastoid process did not cause pain. The treatment consisted in washing out the meatus and the removal of a small polypus which was visible at the bottom of the meatus. The patient improved, until on the eighth day he was suddenly seized with severe pain on the left side of the head and about the mastoid process. The outer orifice of the ear was completely closed, through tumefaction of the superior wall; a profuse discharge of pus occurred from the ear; the pulse became slow; paralysis took place in the abducens nerve of the left eye; there was no other facial paralysis. A rhythmical contraction of both sterno-cleido-mastoid muscles caused a nodding of the head about every ten minutes. The patient died suddenly. On *post mortem* examination an encysted abscess, about the size of a walnut, was found in the left lobe of the cerebellum. On removing the dura mater from the petrous bone, a pearly white laminated mass was found to have pressed on, and to have caused absorption of, the bone for an extent of about $2\frac{1}{2}$ centimètres, penetrating the tympanum and opening out to the meatus posteriorly. The auditory ossicles were unaffected, and caries was nowhere to be detected. Dr. Katz traces the origin of this growth to the consequences of the suppuration in the middle ear, the result of small-pox in 1871.

W. B. KESTVEN, M.D.

SYPHIOGRAPHY.

RECENT PAPERS.

583. THIRY.—Gonorrhœal Rectitis. (*Presse Méd. Belge*, No. 26, 1882.)
 584. THIRY.—Constitutional Syphilis complicated with Anthrax; Embolic Clots in the Heart; Rapid Death. (*Presse Méd. Belge*, No. 29, 1882.)
 585. CHIARI, HANNS.—On Gummy Osteomyelitis of the Long Bones. (*Viertelj. für Derm. und Syph.*, Heft 3, 1882.)
 586. CHIARI, OTTOKAR, AND DWORAK.—Laryngeal Affections in early Syphilis. (*Viertelj. für Derm. und Syph.*, Heft 3, 1882.)
 587. DIDAY.—Contribution to the Natural History of Syphilis. (*Annales de Derm. et de Syph.*, Nos. 9 and 10, 1882.)
 588. COEN.—Statistical Notes on the Venereal Ulcerating Bubo. (*Giornale Ital. delle Mal. Ven. e della Pelle*, Dec. 1882.)

589. GILLES DE LA TOURETTE.—On Subcutaneous Injections of Iodide of Potassium. (*Le Progrès Médical*, No. 1, 1883.)
 590. BARTHÉLEMY.—The Influence of Alcoholism on Syphilis. (*Annales d'Hygiène Publique et de Méd. Légale*, Jan. 1883.)
 591. SHARKEY.—Syphilitic Disease of the Cerebral Arteries. (*Ibid.*)
 592. SHARKEY.—Syphilitic Inflammation of the Capsule of the Liver. (*Ibid.*)
 593. ENGEL, HUGO.—Syphilitic Hepatitis in Children. (*Amer. Jour. of Obstetrics*, Jan. 1883.)
 594. STERNBERG.—The Micrococcus of Gonorrhœal Pus: Infective Virulence not Due to the Presence of this Parasitic Organism. (*Phil. Med. News*, Jan. 20 and 27, 1883.)
 595. BERNARD.—The Site of the Initial Manifestation of Syphilis in the Male Genital Organ. (*Liverpool Med. Chir. Jour.*, Jan. 1883.)
 596. EKLUND.—Note on the Micro-organisms of Gonorrhœa. (*Annales de Derm. et de Syph.*, Nos. 9 and 10, 1882.)
 597. MORISON.—On the Presence of Bacteria in Syphilis. (*Wiener Med. Wochenschr.*, No. 3, 1883.)
 598. MARTINEAU.—Syphilis in the Monkey. (*Gazette des Hôpitaux*, No. 12, 1883.)
 599. GALLARD.—Simple Vaginitis, and Virulent or Gonorrhœal Vaginitis. (*Ibid.*, No. 15, 1883.)
 600. LUCAS.—Syphilitic Gummata of the Pharynx. (*Practitioner*, Feb. 1883.)
 601. ROBINSON, TOM.—On Discharges of Pus from the Male Urethra which are not Gonorrhœal. (*Brit. Med. Jour.*, Feb. 3, 1883.)
 602. HIGGINS.—Gummata of the Sclerotic. (*Brit. Med. Jour.*, Feb. 10, 1883.)
 603. PATTERSON.—An Exposure of the Contagious Diseases Acts and of Government Lock Hospitals. (*Glasgow Med. Jour.*, Feb. 1883.)
 604. LOWNDES.—A Defence of the Contagious Diseases Acts and of Government Lock Hospitals. (*Glasgow Med. Jour.*, March 1883.)
 605. PARK.—The Mercurial and non-Mercurial Treatment of Syphilis. (*Ibid.*)
 606. LUCAS.—A Case of Syphilitic Ozena, for which Rouge's Operation was Twice Performed. (*Lancet*, Jan., p. 93.)
 607. MAIN.—Active Local Treatment in Gleet. (*Brit. Med. Jour.*, Feb., p. 310.)
 608. TOTHILL.—Permanganate of Potash in Gonorrhœa. (*Lancet*, Jan., p. 45.)

ART. 583. *Thiry on Gonorrhœa of the Rectum.*—Professor Thiry remarks (*Presse Méd. Belge*, No. 26, 1882), that both reason, and the cases which he has observed from time to time, compel him to believe in the reality of gonorrhœal inflammation of the rectum, an affection which is not recognised by many authors. He then relates the following case. A woman, aged 24, a clandestine prostitute, was admitted into the Hôpital St. Pierre, Brussels, complaining of weight and shooting pain in the pelvis, pain in defecation, and a constant thick discharge from the bowel. Walking also was difficult. On examination, there was a well-marked funnel-shaped depression of the anus, the anal folds were obliterated, and the sphincter was weak and dilated. A vaginal speculum of ordinary size passed easily and without causing pain. On washing away the abundant thick discharge, the lower portion of the rectum was seen to be acutely inflamed and studded with bright red points, which bled when wiped with wool. The follicles in the rectal folds were enlarged, and discharged pus. The patient confessed that she had had relations with men who

were suffering from clap. Solution of borax was used locally at first; afterwards red cinchona bark was applied to the mucous membrane, and, finally, an injection of oak-bark was used. Under this treatment, combined with sitz-baths, and the internal administration of iron, the woman recovered in about three weeks.

585. *Chiari on Gummy Osteomyelitis of the Long Bones.*—Professor Hanns Chiari, of Prague, after remarking (*Viertelj. für Derm. und Syph.*, Heft 3, 1882) on the small number of cases of this kind on record, and quoting the opinions of numerous authors on the subject, proceeds to give an account of ten cases in which he found gummy growths in the medulla of long bones. The first case specially observed by the author was that of a woman, aged 38, under the care of Professor Sigmund in 1876. She had suffered from syphilis for many years. Gummata were found in the humerus and femur, the liver was puckered, and there was tuberculosis of the lungs and bowels. Since that time Dr. Chiari has examined as many of the long bones as was practicable without disfiguring the bodies, in all the subjects of inveterate syphilis which came to the *post mortem* room. The number of cases of severe acquired syphilis thus examined was twenty-seven, and in nine of them gummata were found in the medulla of one or more of the long bones. Case 1.—Female, aged 59. Gummata in the marrow of the lower half of the humerus. Case 2.—Male, aged 31. A gumma the size of a nut in the medulla of the lower part of the left radius. Case 3.—M., aged 52. A gumma the size of a bean in the medulla of the left humerus near its upper end. Case 4.—F., aged 60. In the medulla of both tibiae, one femur, and one humerus, several gummata the size of nuts. Case 5.—M., aged 41. Two gummata as large as nuts in the medulla of the lower third of the right femur. Case 6.—F., aged 33. Two gummata in the medulla of the right femur towards the lower end. Case 7.—F., aged 45. Several gummata in the upper and lower portions of the medulla of the right tibia. Case 8.—F., aged 34. Numerous gummata as large as peas in the medullary canal as well as in the spongy tissue of both femora, also one nodule in the medulla of the right tibia. Case 9.—M., aged 34. In the medulla and spongy tissue of both tibiae numerous nodules, some being as large as a pigeon's egg; necrosis of the lower epiphysis of the right tibia. The author remarks that all these were undoubtedly cases of gummy osteomyelitis. Under the microscope the growths presented the usual appearance of gumma, and also corresponded with syphilitic new growths elsewhere in their tendency to partial and central caseation. The anatomical details were not the same in all the cases. In some the new growth was white and gelatinous; in others it was fibro-gelatinous. In most cases there was central caseation except in the smaller nodules. In size the growths varied from that of a nut to that of a pea. The number also varied much, but as a rule the growths were multiple. In Case 9 there were eleven in the medulla of the two tibiae, and eleven in the spongy tissue. The most usual seat of gumma in bone cannot be decided from these cases, as all the bones could not be examined. In the ten cases the growths were found in the femur six times, in the tibia five times, in the humerus four times, and in the radius once. In some instances the surface of the affected bone was thickened, but in others it was

unaffected. Thus deep gummata cannot always be diagnosed by the outside appearance of the bone. The symptoms of deep gumma are very rarely clearly marked. Only once in the ten cases (Case 9) was the presence of gummata made anything like certain by the history of osteocopic pains. The termination of central gummata in bone varies. The growths may remain stationary for a long time, or may be wholly absorbed, or may give rise to sclerosis, or may degenerate so that only a scar remains. They often occasion the so-called spontaneous fractures. They may also be the cause of central necrosis; but of this the author has no direct anatomical evidence.

586. *Chiari and Dworak on Laryngeal Affections in Early Syphilis.*—Drs. Ottokar Chiari and Dworak examined with the laryngoscope in five months more than 200 patients who were suffering from recent syphilis or from a repetition of the earlier symptoms, all cases where gummata or other tertiary lesions were present having been rigidly excluded (*Viertelj. für Derm. und Syph.*, Heft 3, 1882). For various reasons some of them were rejected, the numbers dealt with by the authors in the present communication being 164, viz., 108 men and 56 women. Of these 30 had well-marked, and about 35 slight redness and swelling of the laryngeal mucous membrane; 24 had catarrh; and 12 showed characteristic syphilitic changes in the larynx. *Erythema.*—Of the 164 cases examined there was well-marked diffuse redness with or without swelling in 30, sometimes accompanied by deep redness of the throat, but often by redness of varying intensity down to normal. One-third of the cases of intense erythema occurred from six to ten weeks after contagion. In 7 cases there was also considerable swelling of the mucous membrane; and in 17 erythema of the throat was present. There is no doubt that redness and swelling of the larynx do occur in syphilis, but the condition cannot with certainty be distinguished from that caused by ordinary catarrh, except by other evidence of syphilis. The authors have never seen the circumscribed maculæ, which Jullien and Fauvel consider to be characteristic of syphilis. *Catarrh.*—This can only be diagnosed from catarrh due to other causes by the history, by other signs of syphilis, and by the effect of treatment. Twenty-four of the 164 patients had catarrh. In six there was acute catarrh with well-marked hoarseness; three of them having also redness, paresis, and superficial erosions of the vocal cords, and the other three redness and paresis with more severe hoarseness. All had other signs of syphilis, such as papules of the throat or genital organs, or psoriasis of the palms or soles, and all soon recovered under treatment. In the remaining eighteen cases the catarrh was chronic, and was not influenced by general specific treatment. *Mucous patches or papules* were present in five of the 164 cases. In three, the seat was the vocal cords; the duration was from three to five weeks, and the lesions disappeared entirely without leaving any scar. In one case the epiglottis was attacked, and in one the interarytenoid commissure was the seat of papules and erosions twelve weeks after contagion. In all five cases, mucous patches were present on the tonsils or at angles of the mouth. The time of appearance varied from sixteen weeks to eight months after contagion. *Ulcers.*—In four cases, superficial ulcers resulting from disintegration of papules were observed. In one, the vocal cords alone were affected; in one, the interarytenoid folds; in one, the vocal cords as well

as the interarytenoid space; and in one, ulceration of the vocal cords was accompanied by much œdema over the arytenoid cartilages. All these occurred in patients from seven to eighteen months after contagion. Two recovered under general treatment, and the other two were lost sight of. Lastly, three patients showed other laryngeal lesions which, from their course, &c., were considered to be due to syphilis. Of these, one had deep ulcers with red swollen edges on both processus vocales; this case recovered under general treatment. One had a raised whitish patch over the right arytenoid cartilage; the third had a roundish swelling, of the size of a lentil, behind the right processus vocalis, and the vocal cord on the same side thickened to three times its natural size. The appearance and disappearance of these lesions corresponded with those of mucous patches of the mouth. Besides reporting the cases just mentioned, the authors enter at considerable length into the subject of early laryngeal syphilitic affections, and quote the opinions of a large number of writers. Four coloured drawings of syphilitic lesions of the larynx accompany the paper.

588. *Coen on the Statistics of Virulent Bubo.*—Dr. Edmondo Coen, of Bologna, publishes (*Giornale Ital. delle Mal. Ven. e della Pelle*, Dec. 1882) an account of the conclusions at which he has arrived from a study of 80 cases of virulent bubo in the clinic of Professor Gamberini. Of the 80 cases the bubo was single in 66 (38 right and 28 left) and double in 9, all these being male patients. In the remaining 5 cases the patients were women. The following are the conclusions drawn by Dr. Coen from these cases. 1. When the soft chancre occupies a clearly defined situation to the right or left of the middle line of the penis, the bubo is on the corresponding side of the body in 83.33 cases per cent. 2. Soft sores of the preputial region are those which most frequently give rise to ulcerating bubo (in the proportion of 48 per cent.). 3. Crossed bubo (bubo on the side opposite to the sore) occurs 7.74 times per cent. 4. The bubo appears during the first three weeks after the appearance of the sore in 81.25 per cent. (Of the 80 cases noted by Dr. Coen, the buboes appeared during the first week in 20, during the second week in 27, during the third week in 18, during the fourth week in 7, and after the fourth week in 8.) 5. Bilateral bubo was noticed 11.25 times per cent. Soft sores on or near the frenum are those which most frequently cause double bubo (55.55 per cent.). 6. Women are far less liable to bubo than men (6.25 per cent.). 7. 21.25 per cent. of ulcerating venereal buboes are complicated with perianitides.

590. *Barthélemy on the Influence of Alcohol on Syphilis.*—In a paper read before the Société de Médecine Légale, M. Barthélemy states (*Annales d'Hygiène publique et de Méd. Légale*, Jan. 1883) that the effects of alcoholism may be shown at the very outset of syphilis by the form, depth, induration, and unhealthy aspect of the initial lesion, as well as later on by the intensity of the secondary symptoms. The author collected all the cases under the care of M. Fournier at the Hôpital St. Louis in which the symptoms, especially the affections of the skin, were unusually severe, and found that almost all the worst cases in men occurred among coachmen, labourers, butchers, and others much given to drink. All the women who suffered severely were barmaids. The large number of these women who suffer from syphilis, and who came under treatment

at the Lourcine and St. Louis Hospitals, is also dwelt on; and the author concludes by urging that drinking bars in which women serve ought to be regulated by law, on moral as well as on hygienic grounds.

593. *Engel on Syphilitic Hepatitis in Children.*—A previously healthy girl, aged 10, began to suffer a year before she came under Dr. Engel's notice from loss of appetite, wasting, sour eructations, sluggish bowels, and lassitude (*Amer. Jour. of Obstetrics*, Jan. 1883). The child was treated for worms, scrofula, and dyspepsia. Change of climate and a sea voyage had also been tried without benefit. Finally the abdomen began to swell, and the patient was confined to her bed. When seen by Dr. Engel the child was emaciated, the face wrinkled, the eyes dull, the skin of a dirty yellow colour, and the deformity of the teeth described by Hutchinson was present. The chest was normal. The abdominal veins were full, and there was much ascites and tympanites. The urine was free from albumen. Dr. Engel diagnosed syphilitic hepatitis, principally by exclusion and the failure of previous treatment. Paracentesis was performed, and nearly a gallon of fluid removed, after which the liver was found to extend to within half an inch of the iliac crest. The liver was soft and slightly tender, with a smooth even margin. The spleen was moderately enlarged. Under mercurial inunction and iodide of potassium internally, the child had greatly improved in a little over two months, and there had been no return of ascites. In six months the child was in good health, and the liver and spleen had become normal in size. Dr. Engel mentions that he had a similar case in 1872 in a child seven years old, who also recovered under mercurial inunction and iodide of potassium. Dr. Engel thinks the essential points in the diagnosis of such cases are occasional ill-health not attributable to any evident cause; peculiar colour of the skin and cachectic appearance; ascites, which comes on gradually with absence of the usual causes—*e.g.* tubercular peritonitis or cancer; absence of pain, and almost of tenderness; absence of bleeding from the nose, stomach, or bowels; great enlargement of the liver and spleen, the margin of the former being smooth; dyspepsia without other symptoms; success of anti-syphilitic treatment; and the fact that in all the reported cases of hepatitis due to inherited syphilis, the patients were females.

594. *Sternberg on the Micrococcus of Gonorrhœal Pus, &c.*—In the *Philadelphia Med. News*, Jan. 20 and 27, 1883, Dr. Sternberg gives a detailed account of his researches on this subject, together with the results of various experiments on man and the lower animals. The first experiments consisted in the inoculation of a dog in the urethra and right eye, of a bitch in the vagina and right eye, and of a puppy in the vagina and right eye, with pus obtained from the urethra of a patient with gonorrhœa, by means of cotton wound round the end of a probe. This was then vigorously rotated in the urethra, vagina, or conjunctival sac of the animal. All these experiments, as well as others made on rabbits, were unsuccessful. The next experiments were made by Dr. Hirschfelder, with culture fluids prepared by the author, on patients in a hospital at San Francisco. The pus from which the culture-fluid was prepared was obtained from cases of acute gonorrhœa which had not been subjected to any local treatment. In the first experiment of this kind, the culture-fluid (fifteenth) containing the micrococcus of gonorrhœal

pus was introduced into the urethra of three men on small wads of cotton thoroughly moistened and left *in situ* for fifteen minutes. All these patients were suffering from chronic diseases which obliged them to remain in bed. In the next experiment, a fresh culture (fourteenth) from another recent case of gonorrhœa was introduced in the same way as before into the urethra of one of the subjects previously experimented on. In all the foregoing cases the culture-fluid (rabbit bouillon) was neutral. In another case a slightly alkaline culture-fluid (thirteenth) was introduced into the urethra of another man. Finally, a culture-fluid (thirtieth, or above) was employed as before on two other healthy men. In all these seven experiments, the results were entirely negative. Again, injection into the male urethra of one cubic centimetre of a third culture from gonorrhœal pus failed to produce any effect; and this was repeated by the author several times with the same result. Other experiments with reference to the nature of the organism found in gonorrhœa were also made by the author, who remarks, as the result of his researches, that the question of the cause of the virulence of gonorrhœal pus remains where he found it. The micrococcus found in every specimen of gonorrhœal pus examined is an accidental parasite, which has nothing to do with the special virulence of the fluid. The organism in question is, according to Dr. Sternberg, identical with the micrococcus ureæ (Cohn), which has been shown to be the cause of alkaline fermentation in urine (Pasteur). The following is a summary of the results of the author's experimental researches on the subject. 1. Microscopical examination of numerous specimens of gonorrhœal pus from a number of cases has demonstrated the constant presence of the micrococcus above-mentioned. 2. On inoculating a sterilised culture-fluid with a small quantity of gonorrhœal pus at the moment of its escape from the meatus urinarius, and placing this in a culture-oven for a few hours, an abundant development of micrococci takes place. 3. The micrococci present in all cases the same morphological characters, and no other micro-organisms than these appear in a hermetically sealed flask inoculated as above indicated. 4. These micrococci introduced beneath the skin of a rabbit produce no noticeable result. 5. Culture-fluids containing these micrococci, introduced into the healthy male urethra, do not give rise to specific urethritis or any other noticeable result. 6. Culture-fluids containing these micrococci, on being added to acid urine recently passed and free from micro-organisms, cause it to undergo alkaline fermentation. 7. Urine which has spontaneously undergone alkaline fermentation contains a micrococcus identical in appearance with those obtained by cultivation from gonorrhœal pus.

595. *Bernard on the Site of the Initial Lesion of Syphilis*.—In 120 male patients examined by Mr. Bernard (*Liverpool Med. Chir. Jour.*, Jan. 1883) the site of the initial lesion was—the furrow, 53 times; the inner prepuce, 57; the outer prepuce, 10; the free margin, 2; the corona, 31; the glans, 10; the sheath, 18; the meatus, 6; the frænum, 6 times; and the urethra once.

596. *Eklund on the Micro-organisms of Gonorrhœa*.—In a note on this subject in the *Annal. de Derm. et de Syph.*, Nos. 9 and 10, 1882, Dr. A. F. Eklund states that he has examined under the microscope, in a series of cases of gonorrhœa, both the pus itself and also the superficial layer of

mucous membrane removed from the fossa navicularis of the urethra. The gonococcus described by Neisser and others was found to be constantly present; but the author cannot agree with those who consider the organisms in question to be specific and peculiar to gonorrhœa, for he has found similar bodies in cases of acute and chronic ulceration of the intestine and lungs, as well as in ulcerating stomatitis. Dr. Eklund also states that gonorrhœal pus contains filaments of mycelium, which he calls edioptyton dictyodes. Further, in all cases in which he has examined the pus and superficial layers of soft chancres, he has found micrococci identical with the gonococcus of Neisser, as well as the edioptyton dictyodes. Dr. Eklund is, therefore, of opinion that the virus of soft chancre and that of gonorrhœa are identical; the only difference being in the localisation of the parasite, which sometimes develop on the surface of the mucous membrane, and at others in the substance of the derma. Soft chancre requires for its production a solution of continuity, while the gonococcus of Neisser and the edioptyton dictyodes have sufficient inherent vital force to invade the unabraded mucous membrane of the urethra.

597. *Morison on Bacteria in Syphilis*.—Dr. Morison, of Baltimore, gives an account in the *Wien. Med. Wochens.*, No. 3, 1883, of certain observations carried out by him on the secretions of fifteen syphilitic persons attending the clinic of Professor Neumann in Vienna. The material examined consisted of the discharge of indurated chancres and of syphilitic moist papules. The secretion, having been carefully collected, was spread in a thin layer on a cover-glass, dried, and warmed gently over a flame. The preparation was then immersed in acetic acid, and afterwards in absolute alcohol. After being again dried, it was stained with methylene blue or fuchsin, the latter being preferable. After remaining for half an hour in the staining solution, which was also gently warmed, the specimen was steeped in a solution of nitric acid (1 in 6). Since the author has adopted this method, he has never failed to find bacteria in the discharges of hard chancres and syphilitic papules. In some cases also excised papules were examined, and their under surface, as well as the blood from the cut surface, appeared to be richer in bacteria than the secretions just mentioned. In the substance of chancres and papules, bacteria, though present, were difficult to find. A one-fifteenth Reichardt oil-immersion lens and an Abbe condenser were employed. The organisms appear as cylindrical rods, which lie together in groups for the most part. They all have the same form, and, owing to their being deeply stained, are easily distinguished from the surrounding tissue. Dr. Morison also examined the pus of soft chancres, and found organisms which he considers to be quite different from those found in syphilis. The former are longer and thinner than the latter, and, except that they are smaller, much resemble the bacillus of anthrax. As test-experiments, Dr. Morison examined also the blood of healthy persons, and the secretions of acne-pustules, pustular eczema, and pemphigus, but he never found bacteria in any of them.

ARTHUR COOPER.

600. *Lucas on a Case of Syphilitic Osana for which Rougé's Operation was Twice Performed*.—Mr. Clement Lucas, in the *Lancet*, Jan. 1883, p. 93, notices that this operation has been little practised in this country, and says that, although some autho-

rities consider it a very grave operation, he regards the dangers as trivial. It is far superior to the operation designed by Lawrence, in which the nose was dissected up without the lip, and which is suitable in some cases of polypi of great size which distend the side of the nose and cheek. The notes of the case are briefly as follows. T. A., aged 19, had for three years suffered from a foul-smelling discharge from the nostrils, and many small fragments of bone had come away; at length the smell became unbearable to any one near the patient, and an operation was decided upon. The patient was put under an anæsthetic, the upper lip everted, and an incision made through the tissues between the lip and the gum; the lip was dissected up to the nostrils, the cartilages were next separated from the bones, and the nose and upper lip raised together from the front of the nasal cavity, thus giving considerable space for removing bone by the forceps. Several fragments were removed, and three of larger size. Afterwards the lip was replaced, and a pad of lint being placed over it, a piece of strapping was carried across to retain it in position. Small fragments continued to come away, and about a month after the operation a large loose piece of dead bone was felt; this was removed through the nostril, and turned out to be one of the turbinated bones. A few days after more dead bone was felt, and, being unable to remove it, Mr. Lucas again performed Rouge's operation, this time removing a black offensive piece of bone and some fragments. The lip was afterwards strapped down as before, and the patient was soon discharged much relieved, and free from the offensive smell. [A very excellent plate, showing how much space is gained by Rouge's mode of operating, is given by Mr. Harrison Cripps in the *Lancet*, Vol. i., 1877, p. 642.—*Rep.*]

607. *Main on Active Local Treatment in Gleet.*—Dr. Main, in the *Brit. Med. Jour.*, Feb. 1883, p. 310, notes a case of a patient, aged 19, who came under his treatment suffering from gleet of five weeks' duration, following upon a sharp attack of gonorrhœa. The discharge was abundant and purulent. Exploration with a bulbous-pointed catheter showed that the raw surface lay just behind the fossa navicularis. Local treatment was decided upon, and the patient was kept in bed; a few hours previously to the operation thirty minims of laudanum were given. The orifice of the urethra being closed by lateral pressure with the fingers, a medicated urethral bougie, containing half a grain of nitrate of silver, was inserted. The patient was kept in bed for a few days, and had a sharp urethritis, which passed off rapidly, leaving no symptoms of gleet.

608. *Tothill on Permanganate of Potash in Gonorrhœa.*—Mr. Tothill, in the *Lancet*, Jan. 1883, p. 45, writes that he has had great success in the treatment of gonorrhœa by using injections of permanganate of potash; from two to four drachms of Condry's fluid to half a pint of water is strong enough for injection, and a small syringe used several times a day is successful in nearly every stage of gonorrhœa, acute or chronic. In the *Lancet*, Jan. 1883, p. 86, Surgeon A.M.D. and Mr. Husband, write stating the great success they have met with in using injections of Condry's fluid in gonorrhœa. [A reference to section 1178:1 of the *Medical Digest* shows that the value of permanganate of potash has been long recognised by many observers for nearly twenty years.—*Rep.*]

RICHARD NEALE, M.D.

TOXICOLOGY AND MEDICAL JURISPRUDENCE.

RECENT PAPERS.

609. ROBERTS.—Water Contaminated with Lead. (*Brit. Med. Jour.*, Feb., p. 391.)

610. MACALLAN.—Reinsch's Test. (*Brit. Med. Jour.*, Feb., p. 371.)

611. ROUTH.—Apomorphia in Poisoning. (*Lancet*, Dec. 3, 1882, p. 1073.)

612. FRONMÜLLER.—Pilocarpin and Homatropin. (*St. Petersb. Med. Wochensh.*)

613. GRUNSTEIN, M. T.—On a Case of Poisoning by Carbolic Acid. (*Proceedings of the Tula Med. Soc.*, 1881-82.)

614. TAMASSIA.—On the Possibility of the Spontaneous Return of the Lung to the Atelectatic State. (*Riv. Sper. di Fren. e di Med. Leg.*, Anno VIII., Fasc. iii. and iv., 1882.)

ART. 609. *Roberts on Water contaminated with Lead.*—Dr. A. Roberts, in the *Brit. Med. Jour.*, Feb. 1883, p. 391, in reference to remarks made by Mr. Wigner on the water of Keighley, says that he has examined hundreds of specimens of water for lead after filtration through every kind of charcoal and carbon filter he could meet with, and that he has always found that the lead was removed from the water thus filtered.

610. *Macallan on Reinsch's Test.*—Mr. Macallan, in the *Brit. Med. Jour.*, Feb. 1883, p. 371, in a paper read before the Society of Public Analysts in Dublin, says:—'In testing for arsenic by Reinsch's method, there is a serious source of error which seems to have been overlooked: I allude to the deposition of free sulphur, together with cupric sulphide, on the copper, and its sublimation when heated. When heated in a tube, the sulphur forms a sublimate having a general appearance and behaviour similar to that of arsenious oxide in small quantity, being white; and, resubliming unaltered, under the microscope it is seen to consist of globules. When, however, they are so small as to render their outlines indistinct, they resemble closely the crystals of arsenious oxide in transparency, lustre, and aggregation.'

611. *Routh on Apomorphia in Poisoning.*—Dr. Amand Routh, in the *Lancet*, Dec. 1882, p. 1073, gives two cases in which he used apomorphia with much success in patients who had taken poison. Dr. Routh says that in apomorphia we have a drug which will produce prompt emesis without lowering the patient, or producing any narcotic effects. The dose recommended is $\frac{1}{16}$ th to $\frac{1}{8}$ th of a grain subcutaneously; it is best kept in a solution of 1 in 50 strength. Vomiting occurs in from two to five minutes, the contents of the stomach being usually voided in one rush, without previous nausea, but with violent and visible muscular action of the walls of the stomach. Dr. Routh concludes by saying that apomorphia fails to cause emesis during chloroform narcosis; but no other drug seems to be antagonistic to it, and there is no reason why it should not be used to get rid of morphia itself. [That the value Dr. Routh attaches to the drug is well borne out by practical observations, a glance at section 466:3 of the *Medical Digest* at once shows.—*Rep.*]

RICHARD NEALE, M.D.

612. *Fronmüller on Pilocarpin and Homatropin.* Dr. Fronmüller states, in the *St. Petersb. Med. Wochensh.*, that after injecting 2 centigrammes of

hydrochlorate of pilocarpin under the skin of a syphilitic patient, severe symptoms of poisoning appeared within ten minutes. Perspiration and salivation were profuse, and the pulse rose to 120. All these symptoms disappeared within two minutes after the injection of 15 milligrammes of hydrobromate of homatropin, the pulse falling to 80. In two more cases the same antidotal effects were noticed. Dr. Frommüller observes that it is very fortunate that we now know a ready and rapid remedy for the very alarming results that not rarely follow the employment of pilocarpin.

ALBAN DORAN.

613. *Grünstein on a Case of Poisoning by Carbolic Acid.*—The author reports (*Proceedings of Tula Med. Soc.*, 1881-82) the case of an anæmic boy, aged 8, in whom, on the second day of the application of 4 per cent. phenol solution to a crural ulcer, there appeared headache, giddiness, anorexia, salivation, nausea, vomiting, diarrhoea (black feces), green albuminous urine, sluggishness and contraction of the pupils, and, four days later, shallow and irregular respiration, small and rapid pulse, and clonic convulsions. Convulsive fits were repeated several times a day, lasting from six to thirty minutes, and, at times, being accompanied by loss of consciousness. After the cessation of the use of carbolic dressings, the patient quickly recovered. The chief interest of the case lies in the appearance of convulsions. [Papers on the subject of poisoning with carbolic acid as a surgical application may be found in the LONDON MEDICAL RECORD, April 1880, p. 146 (De Agostini); May, p. 173 (Mr. Litton Forbes); June, p. 228 (Paul); Oct., p. 713 (Gundrum); Oct. 1882, p. 405 (Von Nussbaum).—*L. G.*]

V. IDELSOHN, M.D.

614. *Tamassia on Spontaneous Atelectasis of the Lung.*—The author (*Riv. Sper. di Fren. e di Med. Leg.*, 1882), from an experimental inquiry, holds that Schröder's doctrine is devoid of foundation; and if we find by the hydrostatic test and by the other tests which complete it that the lung is absolutely without air, we may with confidence assert that the infant has never breathed.

WILLIAM R. HUGGARD, M.D.

REVIEWS.

ARTICLE 615.

Twenty-Five Years of Ophthalmic Practice. By DR. A. MOOREN.

THIS is the record of more than a hundred thousand patients, and of more than twenty-eight hundred cataract operations. The author uses boracic or salicylic lotions for catarrh of the lacrymal sac, and only in severe cases slits up the canaliculus. Invererate cases are best obliterated with Paquelin's cautery. Diphtheritic conjunctivitis is treated in early stages with fomentations, not with ice as was formerly the fashion. In later stages caustics are used with caution. He frequently inoculates for pannus, finding the subsequent blennorrhoea perfectly under the control of caustics. Poulices are freely used in episcleritis, and also in the early stage of iritis. In the latter disease they replace the local bleeding generally adopted. The author uses pilocarpin injections for serous iritis. It is a mistake to suppose that sympathetic inflammation is never transmitted in less than five weeks; a case is quoted where the time occupied

was only twelve days. Sympathetic inflammation assumes various forms, and may attack any of the structures of the eye, but the uveal tract is the part of selection. Dr. Mooren has seen three cases of sympathetic neuritis break out after enucleation; two of these yielded completely to treatment. After sympathetic inflammation is once established, enucleation only does harm. The extraction operation he nearly always adopts is Von Graefe's. He has frequently hastened the maturation of senile cataracts by means of punctures, and this with great success. Horner's salicine bandage after extraction gives very good results. In ordinary cases of strabismus the operation is divided between the two eyes. He has found division of the external recti very useful in progressive myopia. The work concludes with an account of many cases of congenital defects of the eye.

W. H. C.

ARTICLE 616.

Ueber die Wundbehandlung mit Naphthalin. By DR. CARL BONNING. Strassburg; 1882.

THE author of this pamphlet advocates the use of naphthaline as an antiseptic agent in the dressing of wounds and ulcers, and gives the results obtained from a trial of this hydrocarbon during twelve months in the hospital practice of Professor Lücke. Naphthaline was first used as a substitute for other antiseptics by Fischer of Strassburg, and Anschütz of Königsberg, and has also been applied in certain cases of skin disease. Dr. Bonning states that in Lücke's practice this agent has been applied in the course of a year in 266 cases of injury, necrosis, and superficial ulceration, and in 16 cases of amputation; but his advocacy of this agent and his statements as to its excellent effects, seem to be much weakened by the fact that in many of the most favourable instances the use of naphthaline was combined with that of carbolic acid. Whether applied unmixed in the form of crystals, or in prepared wool, naphthaline, it is stated, never causes symptoms of general poisoning or local irritation, and thus might be tried in cases where the patient, from age or idiosyncrasy, is likely to be injuriously affected by carbolic acid, or where the raw surface is very extensive. From the reports of Bonning, and of others who have tried it, naphthaline seems to be quite as efficient in its antiseptic properties as iodoform, and at the same time is a far less dangerous application.

W. JOHNSON SMITH.

ARTICLE 617.

Human Morphology; A Treatise on Practical and Applied Anatomy. By HENRY ALBERT REEVES, F.R.C.S.Ed.; formerly Demonstrator of Anatomy at the London and at the Middlesex Hospital Medical Colleges, Assistant Surgeon and Teacher of Practical Surgery at the London Hospital, &c. Vol. I.—The Limbs and the Perinaeum. With 564 illustrations. London: Smith, Elder, & Co. 1882.

THIS work, of which we have as yet but one-third, represents an ambitious attempt to bring the entire anatomy of man, as seen without the aid of the microscope, into three volumes. All the familiar manuals of dissection, systematic text-books of anatomy, condensed and tabulated productions for the benefit of students preparing for examination, and purely scientific works written by comparative anatomists, appear to have been rolled into one by

the literary and scientific labours of the author. It is not fair to blame a work on human anatomy on the score of lack of originality. The essential part of such a production ought not to be original. A new work on human anatomy should chiefly indicate clearer methods of studying broad facts. Mr. Reeves has not attempted any new scheme for the study of the anatomy of man, but has combined older systems. The chief positive virtue of his work lies in a valuable chapter bearing the somewhat Transatlantic title of 'Anatomical Technics.' This section of the work deals very fully with the methods of injecting the body, dissecting-room appliances, the art of dissection and the permanent preservation of anatomical preparations, whether entire, or in sections, after the plan introduced into the College of Surgeons by Dr. Garson. The principal negative advantage in Mr. Reeves' *Morphology* is the elimination of microscopic anatomy, which would be out of place in a work of this kind, now that histology is a science of itself, requiring the aid of the special arts of staining and cutting sections.

The morphology begins with a sketch of the history of anatomy, resembling a similar section in Hyrtl's *Lehrbuch*. The next chapter is devoted to questions of proportion, measurement, and the relation of internal parts to the surface of the human body. Passing over the admirable section on 'Technics,' already noticed, we come to the beginning of the main part of the work. Mr. Reeves dwells much upon surface-markings and minute descriptions of muscular attachments, after Ellis; he also supplies his readers with numerous schematic relations of arteries, precisely on Gray's principle, the name of the vessel being written within a circle and the names of the surrounding parts placed around it. The entire work swarms with illustrations and diagrams—some very old friends indeed, others quite original. Many of the illustrations appear more than once in Mr. Reeves's pages. Thus figs. 42, 44, 92, and 101 are identical; they represent the branches of the right axillary and brachial arteries, and their repetition is probably designed to save students the trouble of turning over pages. We may single out the author's method of teaching the dissection of the hand as particularly worthy of commendation. The diagrams showing the attachments of the extensor and flexor tendons and the vincula are very useful. Mr. Reeves also endeavours to guide the student through the intricacies of the inguinal canal, femoral canal, and the perineum, by copious illustrations. A diagram like 246, illustrating the relations of the parts adjacent to the outer half of Poupert's ligament, is not sufficiently clear, nor large enough to be useful; 262, illustrating the femoral canal, is far better in most respects. We cannot help expressing disappointment at the 'glossarial index,' which is not glossarial at all, but merely an ordinary index of names. Possibly Dr. Garson, who in the preface is credited with the preparation of an index bearing the above denomination, has prepared a true glossary which—having been delayed—is reserved for the end of the third volume, a common index having replaced it at the last moment in the first section. For this, use might be made of Hyrtl's valuable *Onomatologia Anatomica, Geschichte und Kritik der Anatomischen Sprache der Gegenwart*, which, we are glad to find, has not been overlooked by Mr. Reeves in his preface.

The chief defects in this work are—its bulk, which makes it inconvenient for dissecting-room purposes;

its minuteness of detail, which places it above the wants of the student even when 'ambitious to obtain the higher degrees;' and the small share of consideration devoted to osteology. As a work of reference Mr. Reeves' *Human Morphology* is of the highest value—not only acceptable 'to the physician, practitioner, and operating surgeon,' but particularly valuable to demonstrators and lecturers on anatomy and to the curators of anatomical museums. Mr. Reeves's labour in the production of this treatise must have been very heavy, but even if the chapter on 'Technics' had alone been published, his work will not have been in vain.

ALBAN DORAN.

NOTES ON BOOKS.

ARTICLE 618.

The Causation of Sleep. By JAMES CAPPIE, M.D. Second Edition, rewritten. Pp. 207. Edinburgh, 1882.—In this little book an attempt is made to show that during sleep the arterial and capillary vessels of the brain contain less blood, while to an exactly corresponding extent the veins of the pia mater contain more. The first step in the series of changes which culminates in the production of sleep, is lessened activity of the cerebral molecules; the next a change in the capillary circulation, the capillaries being drained to an extent with which activity of function is incompatible; and the last, extension of the veins and compression of the brain by the same, in producing which the weight of the atmosphere is an essential agent. With the altered balance of the circulation there is a change in the balance of active pressure; it is less from within, and more on the surface; and with a certain amount of compression consciousness is suspended. For the correctness of his conclusions the author relies, not on any experiments he has performed, but on the appositeness of the analogies adduced, and the coherence of his argument; and his reasoning shows a philosophical and well-trained mind. In an appendix the views of other authors, more especially of Durham and Moore, are criticised; and the frontispiece shows a chromo-lithograph of the circulation of the retina in the normal waking state, and in a comatose condition, illustrating the author's propositions. In the comatose state the disc is shown paler, the arteries smaller, and the veins more tortuous and fully distended.

JULIUS ALTHAUS, M.D.

Le Petit Formulaire à l'usage des Médecins Practiciens. By DR. COUTISSON, Ex-interne de l'Hôpital de Versailles. Paris: Librairie Savy. 1882.—In publishing this formulaire, the author disclaims any intention of endeavouring to compete with the works of Jeannel, Bouchardat, Bouchut, and Gallois. It is simply a collection of prescriptions which have appeared in the medical journals from 1878 until the present time. The diseases are arranged in alphabetical order and there are two copious indices, one of subjects and the other of authors. The work has been fairly well done, and its pages might perhaps afford a useful hint in the treatment of an obstinate case. In future editions a little more care might be taken to insure the correct spelling of proper names. It is probably not a matter of any great importance how an author's name is written, but such variations as "Murrel," "Muir," and "Musel" might in time lead to confusion.

Dictionnaire Annuel des Progrès des Sciences et

Institutions Médicales, Suite et Complément de tous les Dictionnaires. Par M. P. Garnier. Paris: Germer Baillière et Cie. 1883.—This useful work was commenced in 1865, and has appeared annually without intermission for eighteen years. The present volume gives an admirable *résumé* of the chief medical works published in this country and on the Continent during the past twelve months. The introductory chapters are of considerable interest, and are well worth reading. In the body of the work, the subjects are arranged in alphabetical order. The references are numerous, and, as a rule, most accurate. The notes on therapeutics are excellent, and are eminently adapted to the requirements of busy practitioners.

WILLIAM MURRELL, M.D.

MISCELLANY.

SUDDEN CHANGES IN THE COLOUR OF THE HAIR AND SKIN.—At a recent meeting of the Academy of Medicine of Dublin, Dr. W. J. Smyly read a paper on sudden change in the colour of the hair of an infant. The child was perfectly healthy to all appearance until he was four months old. He was then attacked with acute inflammation, followed by suppuration in the left temporal bone, with high fever and profuse perspiration, and paralysis of the left side of the face. One morning (Nov. 1 last) the hair on the right side of the head was discovered to have undergone a remarkable change from its original mouse-coloured hue to a reddish-yellow. The right eyebrow was similarly affected, and the skin of these parts—as well as that of the right hand—was bright yellow. The pillow also was saturated with a reddish-yellow perspiration. The suggestion offered as to the possible cause of this remarkable change in the colour of the hair was that the perspiration, which was of a peculiar colour and probably of abnormal chemical constitution, not only destroyed the original pigment, but also dyed the hair a reddish-yellow colour. Dr. Banks referred to a case which had come under his notice—that of a young woman. Half of the lashes of one of her eyes became snow-white, which she attributed to the annoyance suffered from the persistent gaze of a ‘wall-eyed’ admirer who had white lashes on the defective eye. Dr. Walter Smith related the case of a boy in whom the skin of the lobes of both ears and that of the back of the neck was of a sulphur-yellow, the downy hair being of a bright yellow. The hair of the head was brown. The yellow colouring could be readily removed by a moistened cloth, but no washing could decolorize the skin; nor did ether or chloroform produce any effect. He exhibited specimens of the hair. He also referred to a case of red discoloration recorded by Wilson. After relating the case described by Darwin, in which the hair of a criminal, brought out for execution, turned white in the presence of the spectators, he said he could not agree with Dr. Smyly in ascribing bleaching properties to the perspiration, but did not give any explanation in lieu of it.

THE TRUTH ABOUT OYSTERS.—‘Some delusions regarding the oyster’ is the title of a paper by Dr. C. L. Dana, of New York, in the *Philadelphia Medical and Surgical Reporter*. The doctor is a lover of truth but not of oysters, or he would never have laid bare what he is pleased to term fallacies attached to our ideas of the delicious bivalve. It is a common belief, very consoling to those of feeble digestions, that the oyster, when taken into the stomach, executes, by virtue of hepatic diastase, a kind of *fêlê de se*, and digests itself. The doctor has tried the experiment, and put oysters, whole and masticated, into water, plain, alkaline, and acidulated, and finds the result *nil*, except in the case of the acidulated water, when prolonged digestion caused a softening of the liver of the bivalve. Fallacy number two—that raw oysters are always more digestible than when cooked—is not borne out by artificial digestion

with pepsine. The oyster stew, being composite in character, is, however, not quite as readily managed by the stomach as raw oysters or those roasted in the shell. Delusion number three—that fermented liquors digest or assist the digestion of the bivalve was not borne out by fact, nor was the oft cited experiment, that an oyster dropped into a glass of beer will dissolve, found to be correct. As a general conclusion we must reluctantly concede that the oyster is a mockery, but, like some other delusions sometimes associated with it, it will still be indulged in by ordinary mortals, who can afford it.

LADY DOCTORS IN AMERICA.—The *Philadelphia Medical Times* announces that Dr. Clara M. Ellsbury, of Cincinnati, and Dr. Juliet M. Thorpe, of Covington, Kentucky, have this winter opened a dispensary for the treatment of the diseases of women and children. It is modelled somewhat after the outdoor department of the New England Hospital, where Dr. Ellsbury received her preliminary practical training. These young ladies are both graduates of regular medical colleges, the one from Ann Arbor, Michigan, and the other from the Woman's Medical, of Philadelphia, and are both members of the Academy of Medicine. They are energetic workers in their chosen profession, and are achieving well-deserved success. The Academy of Medicine has now three female members, the third being Dr. Julia Carpenter, who was the first lady member. The *New York Medical Record* writes: Dr. Jennie McCowan was elected President of the Scott County Medical Society, Iowa, on Feb. 15. This is, we believe, the first instance on record in which a woman has been elected to preside over a body of medical men.

LUNATICS IN A PRIZE COMPETITION.—The results of the Italian prize competition for a monument to Victor Emanuel last year were not a little surprising. Out of the 296 designs that were sent in, the judges found that only about two dozen were of sufficient merit to be admitted to the narrower competition, all the rest being rejected at the first inspection as unsuitable. Recently an Italian physician, Dr. Dossi, who is well known for his labours in the psychiatric field, has published in the *Archives de Psychiatrie* a statement which has caused considerable astonishment in and out of the Italian kingdom. He announces that of the 296 designs sent in no fewer than 39 were the production of notorious lunatics. It would be interesting to learn whether any of these 39 were included by the judges in the 20 designs admitted to the narrower competition, but on this point the doctor leaves us in ignorance.

POISONOUS PROPERTIES OF EDIBLE FUNGI.—It is well known that among the higher fungi there are some which, even when cooked, are dangerously poisonous, while others may be eaten without harm. That the latter, however, contain a poisonous principle seems to be proved by experiments recently made by M. Dupetit. He injected under the skin of some animals fresh juice from the edible fungus *Boletus edulis*, in a dose of 2 cubic centimetres to 100 grammes weight of the animal. This was followed by symptoms of poisoning and by death, the latter in three to six hours in the case of the rabbit, and a longer time in those of the guinea-pig and rat. Similar effects were had from other fungi, supposed non-poisonous, e.g. *Amanita cesarea*, *Amanita vaginata*, *Amanita rubescens*, and *Agaricus campestris*. The juice of the cultivated agaric seemed less active. It is a curious fact that *Amanita rubescens* alone, among the species of fungus experimented with, proved poisonous to frogs when the juice was injected. The juices of those fungi may be introduced in large doses, and, in the fresh state, into the alimentary canal of guinea-pigs with impunity. Moreover, *Amanita rubescens*, considered always poisonous in the raw state, produced no apparent injury to dogs which swallowed it raw. The chemical properties of the active principle recall those of soluble ferments, and not those of known alkaloids. Submitted to a temperature of 100° C. the juice always becomes quite innocuous. Thus there is no risk attaching to edible fungi when cooked.

The London Medical Record.

ARTICLE 619.

LINDNER ON TRACHEOTOMY IN CASES OF CROUP AND DIPHTHERIA.

DR. H. LINDNER has recently published (*Deutsche Zeitschr. für Chirurgie*, Band xvii., Heft 6) 106 cases in which tracheotomy had been performed in hospital and private practice for croup and diphtheria, by the author himself or under his direction. In one of these cases death occurred on the operating table, and in another, in which the condition was quite hopeless, the operation was performed in order to keep the patient alive until the arrival of the parents. Of the 101 remaining patients sixty-three died, or 62½ per cent.; and thirty-eight, or 37½ per cent., recovered. In seventy-nine cases in which obstruction of the air-passages was the prominent morbid condition, forty-four, about 55·7 per cent., were fatal; in the twenty-two cases in which this condition was subordinate to symptoms of intense general infection, all the patients died. A tabulation of the author's cases, giving the proportion of deaths and recoveries at different ages, seems to indicate that after the second year there is a marked change in the relation of successful to fatal cases. Whilst in the second year the mortality is 88·8 per cent., in the third year the percentage of recoveries is 55. The author refrains from drawing any positive conclusions from these figures. The reduced proportion of fatal cases with advance in years might in his practice have been due to chance, and other and more extensive tables might show quite different relations. The proper time for operating, it is thought, is that when well-marked retraction of the scrobiculus cordis is first observed. If the surgeon delay in operating far beyond this stage, the prognosis becomes very unfavourable; and, on the other hand, if he decide on intervening at an earlier date, he may see his patient recover after the proposal to operate has been rejected by the friends, an event, Dr. Lindner states, which would serve neither the reputation of the doctor nor a desirable popularisation of the operation. Unfortunately, in most cases, as the child is often brought to him at too late a period, the surgeon is seldom able to operate at the first appearance of this special indication.

In all save five of the tabulated cases, Dr. Lindner performed superior tracheotomy. In one case only was the operation done below the isthmus of the thyroid gland. In two cases the isthmus was divided. Considerable hæmorrhage resulted in these, and also in one case in which a much swollen thyroid gland was lacerated. The superior operation, Dr. Lindner holds, is specially indicated in the case of an infant, or young subject in whom the thymus still exists and is well developed. Dr. Lindner has never met with profuse hæmorrhage or any serious complication in performing the superior operation; and he cannot understand why the inferior method should be preferred in operating on young subjects of croup or diphtheria.

The administration of chloroform during tracheotomy is recommended in all cases, save those in

which there is intense asphyxia. No disadvantage, it is stated, ever attends the use of this anæsthetic in favourable cases; on the contrary, when the patient is well under its influence, the breathing becomes deeper and less rapid, the cyanosis is diminished, and the operation can usually be performed without undue haste.

In the after-treatment of his early cases of tracheotomy for croup or diphtheria, Dr. Lindner trusted mainly to inhalations of lactic acid in a two-per-cent. solution. Of late, he has used only pure steam. The only way, it is now thought, in which inhalations can act beneficially after tracheotomy, is by preventing an accumulation of dry and firm secretion within and below the cannula. That a moist and warm inhalation can do this is not to be doubted; but here the action ends, as no inhalation, whether simple or medicated, can favour separation and discharge of the false membrane. Continuous and forcible application of hot steam is not free from danger, especially when lactic acid or any conducting agent has been added. Reference is made to the results of some experiments made by Heidenhain to determine the cause of pneumonia after tracheotomy. In these observations it was shown that, so long as the air respired by a tracheotomized animal is dry, no matter whether the temperature of this air be high or low, not the slightest damage is done to the lung; whilst, on the other hand, air that is moist and heated to 130°, or above this, will set up lobular pneumonia.

In some of his recent cases Dr. Lindner has practised aspiration, which he regards as a very efficacious means in the after-treatment of patients subjected to tracheotomy, and of service when croup has extended below the bifurcation of the trachea, and attacked the mucous membrane of the bronchi and their divisions. By this treatment the air-passages may be cleared of accumulated secretion, which is the cause, in many cases, of still impeded breathing after tracheotomy, and which cannot be ejected spontaneously. Of nine cases of tracheotomy in which aspiration was subsequently tried, eight were successful—a striking result, Dr. Lindner points out, as several of these were really severe cases, and five of the patients had bronchial croup.

Dr. Lindner regards apomorphia as a valuable medicinal agent in the after-treatment if given in sufficiently large doses. He was led to try apomorphia by an observation of Dr. Jurasz, that this alkaloid excites an abundant watery secretion from the bronchial mucous membrane, and thought that it might thus favour separation and removal of the false membrane. A favourable influence in this respect has, it is stated, been exerted by apomorphia in several recent cases, in some of which it was found unnecessary to perform tracheotomy.

An important point in the after-treatment in cases of tracheotomy is the removal of the tube. This should be removed as soon as the air-passage is sufficiently free; but as to when this is really the case, there is likely to be much difference of opinion amongst surgeons. In cases in which the patient is well nursed and constantly watched, and surgical aid is close at hand, the tube may be removed at an earlier period than in cases where such conditions do not exist. Dr. Lindner states that when, after removal of the tube and temporary closing of the wound, the patient breathes freely and can speak with a clear and strong voice, there is no longer any necessity for the tube to be replaced.

Next to symptoms of general infection, pneumonia

is the most frequent complication after tracheotomy in cases of croup and diphtheria. A rise of temperature above 102° on the first or second day after the operation is to be regarded as a bad sign. In cases of this kind the patient, according to Dr. Lindner's experience, rarely recovers. Impairment of deglutition through paralysis is regarded as but a temporary result of diphtheria, and one needing no special treatment in the majority of instances. Ulceration of the mucous membrane through pressure of the tube may be avoided, Dr. Lindner thinks, by inserting an instrument sufficiently large to occupy the whole calibre of the trachea. The shield of the tube in ordinary use is considered to be too broad.

W. JOHNSON SMITH.

ARTICLE 620.

CHIRONE AND TESTA ON THE BIOLOGICAL ACTION OF PICROTOXIN.*

PROFESSOR CHIRONE, of the University of Padua, published last year his experimental researches on the biological action of cinchonidin. He found this alkaloid was capable of producing a true artificial epilepsy. By means of many vivisections he was able to demonstrate that cinchonidin exercises its action on the cortical motor centres of the brain; since, when the cerebral hemispheres in pigeons were removed, the epileptogenic action was wanting; when one cerebral lobe only was removed, cinchonidin caused an epileptic convulsion only on the half of the body in relation with the psycho-motor centres not removed.

Picrotoxin also is able to produce epileptic convulsions. Professor Chirone now publishes the results of his experiments with picrotoxin, undertaken with the aid of Dr. Testa, and compares the action of picrotoxin with that of cinchonidin. He says:—

1. Cinchonidin produces a less complete convulsion, since the motor muscles of the eye, the tongue, and the bladder are rarely affected, whilst these are always involved with picrotoxin.

2. The convulsion caused by cinchonidin is at first clonic, afterwards tonic; whilst with picrotoxin it is at first tonic, afterwards tonic and clonic.

3. By cinchonidin those muscles which are most used in the normal life of the animal are most affected; while by picrotoxin the muscles of the back and neck suffer most.

4. Cinchonidin does not cause convulsions in rabbits, even in a poisonous dose, while these animals are very susceptible to the action of picrotoxin.

5. Cinchonidin has no convulsive action in hibernating animals (frogs, lizards, and toads), whilst picrotoxin causes violent convulsions.

From these and many other facts the authors came to the conclusion, that picrotoxin has not the same seat of action as cinchonidin, and that it provokes convulsions by other mechanism. Picrotoxin acts on the medulla oblongata, since it determines epileptic attacks in decapitated frogs and pigeons whose brains have been removed, and these attacks are even more intense. These are the conclusions at which they have arrived.

1. Picrotoxin may determine true epileptic attacks. These attacks may be very complete, preceded by cry. They commence ordinarily with tremors of the head or contractions of the muscles of the face, and are progressively diffused through the whole

organism. There is loss of consciousness; the animal falls; there are abundant salivation, tonic and clonic convulsions, loss of urine, convulsive rolling of the eyeballs, convulsion of the tongue, which is often bitten, arrest of the respiration and heart.

2. Convulsions from picrotoxin are independent of the psycho-motor centres, since they are more intense when these are removed.

3. Picrotoxin displays its action first on the bulb and on the parts connecting the cerebral and spinal centres, then on the spinal centres, by the last action resembling quinine and differing from cinchonidin.

4. Picrotoxin brings into relief a functional antagonism between the psycho-motor centres and the motor centres of the medulla oblongata and spinal cord.

5. Picrotoxin can also give rise to convulsions after the medulla oblongata is removed. This conclusion is deduced from the experiments on frogs, and in this case the convulsion is later and is tonic.

6. The convulsions of the limbs due to picrotoxin depend on the action which is displayed on the medulla oblongata, and is propagated by the spinal cord, and, secondly, by the direct action of the spinal centres.

7. In frogs the spinal functions are more developed than the cerebral, and, *vice versa*, in dogs and other higher mammals, the cortical motor centres of the brain are more developed than the spinal centres.

8. The convulsions due to cinchonidin are of cerebral origin; and are not obtained when the psycho-motor centres are removed. The convulsions due to picrotoxin are of spinal or bulbar origin, and are more intense after the removal of the higher centres.

G. D'ARCY ADAMS, M.D.

ARTICLE 621.

BIANCHI ON THE COMPENSATORY FUNCTIONS OF THE CORTEX OF THE BRAIN.*

THE chief object the author had in view in his experiments was to determine, when portions of the cerebral cortex are removed, how far and in what manner the remaining cortex supplies the function of the part that has been removed. He finds that serious error has arisen from regarding the motor zone as being marked by well-defined limits, and further, from looking on the excitable areas as definite and clearly limited centres. Hence has arisen the difficulty of explaining how it is that a paralysis caused by destruction of a motor centre disappears in a short time. Dr. Bianchi finds that function returns only when the portion of cortex removed has been small. When the whole or the greater part of the motor zone was removed, the disturbances of motion that followed were not temporary but permanent. When, on the contrary, the portion removed was small, the motor disturbances were transitory, and the functions of the part removed were compensated by the remaining cortical motor zone of the same side.

From these and other like facts, it is inferred that there are not in the motor zone any motor centres strictly so called. The motor zone bears rather a general relationship to the muscular system, and the excitable areas are merely the points which afford

* Contrib. Speriment. alle Compensazioni Funzionali Corticali del Cervello. Comun. prev. del Dr. L. Bianchi (Riv. Sper. di Freniatria, Anno viii. Fasc. iv.).

the best channel for stimulation. A striking experiment illustrates this point. Young dogs were taken as soon as they were beginning to walk (fourteenth to eighteenth day after birth). The anterior portion of the cerebrum was laid bare; the cortical areas were then stimulated, and—not as in the adult animal—some of the areas only were excitable. But the curious point is to come. The exposed portion of the cortex was largely destroyed without provoking any motor disturbance. The puppies walked after the operation neither better nor worse than they walked before it. Dr. Bianchi, therefore, considers it clear that in dogs at least, and perhaps in all other mammalia, locomotion is one of those complex acts, like sucking, which are performed on the application of suitable stimuli, amongst which the will is not to be reckoned (sensori-motor movements).

It should be remarked that Dr. Bianchi points out that the common mode of determining voluntary motion is erroneous. Voluntary motion is judged by locomotion. Locomotion, however, may be apparently perfect in dogs that have undergone an extensive mutilation of the motor zone; whilst usually locomotion is the only kind of movement remaining. To see the real condition of things, it is only necessary to suspend the animal by the trunk; we then observe in the curve of the head and body and in the position of the limbs the characteristic indications of hemiplegia.

In dogs, several months after the greater part of the motor zone of one side had been extirpated, conspicuous improvement was observed. If now in these dogs the motor zone of the other hemisphere were exposed, when a stimulus was applied, the limb on the same side responded as well as the limb on the opposite side. And when this second motor zone was removed there was, in addition to the hemiplegia of the opposite side, marked aggravation of the condition of the same side. These circumstances show that the sound hemisphere assists in compensating for the damage done to the opposite side.

An interesting experiment was made upon the cerebellum; an experiment, however, which only adds to the complexity of an already difficult subject. After many attempts, Dr. Bianchi succeeded in keeping alive a young dog in which he had completely destroyed the cerebellum (at the necropsy only the anterior part of the inferior vermiciform process was found). This dog presented only general defective development, intellectual arrest, and muscular weakness (easily tired); standing, locomotion, volitional movements, tactile sensibility, sight, and hearing were as sound as in other dogs of the same age. After several months the motor zone was exposed, and the experimenter saw reason to think that compensation was made by the anterior lobes of the cerebrum for the abolished function of the cerebellum. This opinion he based on two facts: first, the unusual and disproportionate development of the anterior portion of the cerebral hemispheres, and especially of the sigmoid gyrus; and secondly, the electrical stimulation of the motor zone, which gave rise to associated movements, which he will describe more fully on another occasion.

The sensory zones, like the motor, have not any determinate limits. Take the cortical centre of vision. The same effects follow when a part is destroyed as when the whole is destroyed. The only difference is that in the one case the effects are temporary, owing to the compensating action of the

remaining portion of the same hemisphere; while in the other case they are permanent and incurable.

This power of compensation is difficult to explain. Dr. Bianchi puts forward two hypotheses. Either the centre is functionally and anatomically one, and the excision of a part exercises an inhibitory action over the entire centre, which, later on, resumes its functions; or the different segments have different physiological attributes, but in such strict harmony that the abolition of one deranges the concordant action of the others; which, however, by homology, or by containing analogous elements, afterwards assume the function of the part removed. This last supposition the author inclines to consider the correct one.

In addition to the foregoing views, Dr. Bianchi believes that he has demonstrated that, in certain parts of the cortex, motor centres and sensory centres are found completely intermixed.

The present memoir is a valuable one, and the more detailed account that is promised will be looked for with interest. WILLIAM R. HUGGARD, M.D.

ARTICLE 622.

INGALS, JARVIS, ROBERTS, AND WALSHAM ON DEFLECTION OF THE NASAL SEPTUM.

DRS. INGALS and Jarvis in the *Archives of Laryngology*, Oct. 1882; Dr. Roberts in the *Transactions of the Pennsylvania Medical Society*; and Mr. Walsham in the *Lancet*, Sept. 23, 1882, and in the *St. Bartholomew's Hospital Reports*, vol. xviii., 1882, contribute papers on this subject. Deflection of the septum appears to be far from uncommon, and, indeed, in many cases cannot be regarded as a pathological condition. When, however, it is sufficient to cause obstruction to nasal respiration, it gives rise to certain characteristic symptoms and then calls for surgical interference. Dr. Ingals divides the cases that have come under his notice into four classes:—1. those in which there is a slight bending of the whole septum; 2. those in which there is a bending of the septum and more or less depression of the nose due to injury; 3. those in which there is a local flexion near the nostril of the cartilage only; and 4. those in which a ridge of considerable size runs upwards and backwards from the nostril along the line of articulation of the vomer with the cartilage, which ridge is formed mostly of bent cartilage but partly of bent vomer. Dr. Jarvis classifies them under two varieties, the localised and the general, and the cartilaginous and the osseous, according as they involve the septal cartilage or the vomer. The deflection may occur as a congenital malformation, or as the result of injury from a fall or blow upon the nose, or it may come on spontaneously. In the last case, it has been ascribed by Dr. Ingals to an overgrowth of the cartilage, similar to that which occurs in rickets. When it is the result of an injury, a flattening or lateral distortion of the nose is not uncommon. When the lower part of the septum is affected, it will generally be found to be due to the dislocation of the cartilage from the anterior nasal spine, and an unsightly red prominence projects at the affected nostril. 'In cases of spontaneous origin (says Dr. Ingals) the process of flexion continues for a limited though uncertain time, but probably in most cases for at least two years. It finally comes to a standstill, and there seems no tendency to a recurrence

of an actual increase in the size of the cartilage; neither is there likely to be any atrophy of it: but the deformity, unless relieved by an operation, will continue through life.' The amount of obstruction in the affected nostril varies from a slight narrowing to a complete occlusion. In the latter condition, the deflected septum has been found by Mr. Walsham adherent to the side of the nose. The most common symptom would appear to be a chronic nasal catarrh, accompanied by a nasal twang in the voice and feeling of stuffiness or obstruction in one nostril. Among the symptoms observed by Mr. Walsham in the cases under his care were emphysema of the lower eyelid, dull aching pain in the frontal sinuses, and erythematous mottling of the skin of the nose over the junction of the lateral cartilages with the nasal bones.

Many operations have been proposed for the relief of the affection. Dr. Roberts, in mild cases, makes a crucial incision through the septum at its most prominent part, and then presses the divided cartilage into the middle line. In severe cases, he cuts out a piece of the septum as recommended by Blandin, Zuprecht, Goodwillie, and others, by means of a punch. Dr. Ingals, in extreme cases, divides the mucous membrane from above downwards and outwards, and then, after separating it from the cartilage, cuts out a wedge-shaped piece from the septum; the wedge being so cut that, when the cartilage is forcibly replaced in its normal position, the edges overlap. When the vomer is involved, he removes a portion of it also by means of a fine saw. Dr. Jarvis considers it in most instances sufficient to remove the thickened tissue, and this he does by transfixing the portion to be removed by needles, and then, passing the wire loop of an *écraseur* over the needles, cuts off the redundant tissue. Mr. Walsham, in slight cases, has found forcible straightening by means of Adams's forceps to succeed; when the septum has seemed very resilient, he has divided the cartilage subcutaneously in a stellar manner, so that, when straightened, the cut edges of the cartilage may overlap. By this means the resiliency of the cartilage, which otherwise is apt to cause the septum to reassume its former faulty position, can generally be overcome. When a stellar division has been insufficient, he has dissected up the mucous membrane, and removed a portion of cartilage in a manner somewhat similar to that recommended by Dr. Ingals. He has found it better, however, not to apply stitches to the replaced mucous membrane. W. J. WALSHAM.

ARTICLE 623.

SKLIFOSOVSKY ON EXCISION OF THE ABDOMINAL WALL.

PROFESSOR N. V. SKLIFOSOVSKY, of Moscow, reports (*Vratch*, 1882, No. 13) a highly remarkable case in which he successfully excised nearly the whole left half of the anterior abdominal wall, occupied by an enormous sarcomatous growth. The patient, a peasant woman, aged 24, had been, four years before her admission, kicked by a horse; half a year later, she noticed at the situation of the blow, in the left side of the abdomen, under the ribs, a small lump which had remained unchanged during nearly the three next years. During the last year it began to rapidly grow, and at the time of her last labour, eight months before her admission, it had already attained the size

of the head of an adult man. On her admission, in October 1881, the tumour occupied the whole left side of the abdominal wall, from the edge of the ribs to Poupart's ligament, and, at the level of the umbilicus and three centimètres lower it involved, also, about four finger-breadths of the right side. The circumference of the growth at its base was 81 centimètres (nearly 32 inches) the long diameter 40 centimètres (15.75 inches), the transverse, 39 centimètres (15.3 inches). The tumour was dense and heavy. The integuments over it were movable, and traversed by numerous dilated veins. The patient's general health was excellent.

On November 10, the operation was performed (under the strictest antiseptic precautions). It commenced by a vertical incision along the linea alba, from the end of the ensiform cartilage to the pubes, and by an arched incision along the left costal border. After dissection of the integuments, it was found that the tumour encroached on all the muscular layers and the parietal peritoneum. Accordingly, the next step consisted in four incisions through the whole thickness of the abdominal walls—namely, 1. an internal vertical one along the whole linea alba, with deviation to the right in the degenerated portion of the umbilical region; 2. an upper transverse incision along the costal edge; 3. a lower transverse, carried a finger-breadth above Poupart's ligament; and 4. an external vertical incision along the left axillary line, from the ribs to the crest of the ilium. The removal of the excised parts left a formidable defect, through which there were seen, fully exposed, the stomach, omentum, bowels, and a considerable part of the liver. After cleansing the abdominal cavity the viscera were covered by the integumental flap, and two thick drainage-tubes, each 10 centimètres long, were introduced, one near the umbilicus, another above the pubes. The wound was covered by Lister's dressing, over which were placed several large pads of wadding, in order to secure considerable pressure on the anterior abdominal wall. The wound healed by the first intention. On November 11 and 12 the temperature rose to 38.2° C. (100.75° F.), and then fell to the normal, to rise once more to 38.0° C. (nearly 102° F.) on the 24th. The second elevation coincided with the appearance of abundant suppuration under the flap near the navel. During some days there were daily discharges of about three tablespoonfuls of thick pus through the upper drainage-tube. On Dec. 3 the purulent discharge stopped, and recovery since went on fairly.

On March 5, 1882, the patient left the author's clinic quite well, being furnished with a suitable supporting apparatus made of poroplastic and two duly curved steel springs. On inspection of the patient (with the apparatus off) lying on her back, there was no bulging seen, except during coughing; but in the erect position, the left half of the abdominal wall was considerably bulged outwards, even during normal breathing.

The excised neoplasm weighed 4,100 grammes (9½ pounds), and proved to be a spindle-celled sarcoma.

Professor Sklifosovsky mentions that the first patient from whom he in 1877 removed a large sarcomatous growth, involving likewise the whole thickness of the abdominal wall (see the *Voenno-Medits. Zhurnal*, July 1877), is still in excellent health. She also wears a supporting apparatus, preventing eversion, and feels quite comfortable.

V. IDELSON, M.D.

ARTICLE 624.

ROBINSON ON CONVALLARIA MAJALIS.

PROFESSOR ROBINSON (*New York Medical Journal*) contributes the following notes on this new drug.

During the past three months I have made use of the fluid extract of convallaria majalis in a considerable number of cases of chronic cardiac disease. In it I recognise a new cardiac tonic of considerable value. It should be approximated in its therapeutic effects with those of caffeine and digitalis; not that it resembles closely in all its properties these well-known drugs, but because it is analogous to them in having an appreciable stimulating effect upon cardiac power. When the fluid extract of the root of convallaria has been given in suitable doses (five to ten drops every two or three hours) to patients in whom cardiac incompetency is already apparent, in view of the rational symptoms of dyspnoea, oppression, localised pain over the præcordia, and palpitations, it will aid in diminishing these phenomena in a notable degree. When we have, in addition to these functional symptoms, the ordinary physical signs of cardiac disorder, such as weak, rapid, and irregular pulse; tumultuous, unequal heart-beats, with a blowing murmur at one or other orifice; œdema of the lower extremities, with more or less serious effusion into the large cavities of the body—we shall also be able to remark a certain amount of benefit arising from its use. Thus, the pulse becomes stronger and more regular, the heart-sounds acquire additional force, and the painful palpitations disappear. Dyspnoea is often favourably modified, and the respiration becomes slower and deeper. Anasarca is not usually much influenced by the administration of this drug, and the urine is scarcely, if at all, increased in quantity, nor are its solid constituents manifestly modified in their eliminated quantities. Usually the stomach accommodates itself well to the use of this drug; and in those cases where I have observed intolerance following its administration I have attributed the nausea, or rejection, to beginning uræmic condition.

While I believe that this drug has some power in controlling cardiac action, I am of the opinion that this is exercised mainly through the pneumogastric nerves, and not upon the muscular fibres directly in any considerable degree. This view appears to me to be sustained by its obvious effects in diminishing the intense dyspnoea of asthma, and in quieting palpitations in a remarkable manner. I have not found that convallaria restored rhythmic action to the crippled heart in a degree sufficient to make it in this regard a co-equal substitute of digitalis, nor am I convinced that it is the peer of digitalis in adding to cardiac contractility. Over digitalis, however, it has apparently one very great advantage; viz., it does not, in man at least, and in the doses mentioned above, take on cumulative effects, or produce any poisonous symptoms, which have been feared on account of its well-known pernicious action, even in relatively small doses, upon the lower animals. As compared with the use of caffeine, I would say that it is greatly the inferior of this latter drug when we desire to obtain considerable diuretic effects. As to the comparative power of these two drugs in their action upon the heart, it is as yet impossible to assign their precise place. Still, I am disposed to think that convallaria is somewhat more of an invigorator of cardiac power than caffeine is. At all events, in man its action is a less variable quantity;

for while caffeine, in even small doses of two or three grains, will occasionally produce congestive phenomena of distressing character, and, again, in similar or much larger doses, will prove inert, convallaria appears to produce about similar effects in persons of different temperament. Thus far, in my own experience, convallaria has been more readily accepted by a sensitive stomach than either caffeine or digitalis.

ARTICLE 625.

CHARCOT AND RICHER ON CEREBRAL AUTOMATISM AS EXEMPLIFIED IN HYPNOTISM.

In the *New York Journal of Nervous and Mental Disease* for January 1883, MM. Charcot and Richer describe very interesting instances of unconscious cerebration, observed by them in cases of hysteria during the cataleptic stage of hypnotism. They use the term hypnotism major to designate hypnotism, as observed in patients attacked with hysteria major. It is believed that the phenomena of hypnotism may be best studied in this its most strongly marked form. Hypnotism major does not alone consist in a nervous condition, artificially produced, but it represents as well an entire group of diverse nervous states, each of which exhibits a particular symptomatology. These nervous states, which together comprise the entire symptomatology of hypnotism, are reducible to three fundamental types; viz., the cataleptic state, the lethargic state, and the somnambulic state. Only the first of these is here dealt with.

The cataleptic state in a case of hypnotism major may manifest itself primitively under the influence of a loud and unexpected noise, a light placed before the face, or in certain subjects as a consequence of the more or less prolonged fixation of the eyes upon any object. It is developed consecutively to the lethargic state, when the closed eyes are exposed to the light by raising the lids. Immobility is the pronounced characteristic of the cataleptic state; equilibrium is maintained in almost impossible attitudes, the eyes are open, and the gaze fixed. When the limbs are raised or moved, they offer no sensation of resistance. Contrary to the assertion of many authors, the *flexibilitas cerea* does not belong to the cataleptic state of hypnotism. Tendon-reflexes are much diminished or abolished. The phenomenon of neuro-vascular superexcitability, which characterises the lethargic state, is here completely absent. The skin is insensible to any irritation, but sight, hearing, and the muscular sense remain, at least in part, their activity. The respiratory movements partake of the general immobility; the pneumographic tracings show long pauses, alternating with shallow depressions. This fact supplies a reliable test to show that the subject under examination is not simulating the cataleptic state.

The test is thus applied. The patient's arm is extended horizontally; its extremity is attached to a tambour, whose object is to register the smallest oscillations of the limb, while at the same time a pneumograph applied to the chest gives the curve of the respiratory movements. In the cataleptic state, the tracings obtained show that the arm has been held absolutely still for many minutes, while the respirations have been shallow and intermittent as already described. In the case of a man striving to simulate the cataleptic state, rapid oscillations of

the arm are very soon manifested; these rapidly increase in frequency and extent; the respirations at the same time become deep, irregular, and more rapid, indicating that disturbance of function which naturally accompanies muscular fatigue and prolonged effort. The true cataleptic gives no signs of fatigue, but the simulator is doubly detected—first, by the tracing of the limb, indicating muscular fatigue; secondly, by the tracings of the respiration, which express the effort devoted to masking the effects of this muscular fatigue. Figures of the tracings in question are given with the paper. This test is the more valuable, because that which is usually relied upon, viz., the ability of the patient to maintain the arm in the horizontal position for an indefinite time, is founded upon error. In a cataleptic subject the arm usually begins to descend at the end of from ten to fifteen minutes, and after from twenty to twenty-five minutes, at the most, it resumes the vertical position. A vigorous man, endeavouring to maintain the same position, will be able to do so for about the same period of time.

Owing to some persistence of sensorial activity during the cataleptic state, impressions may be made upon the patient, and automatic cerebral impulses aroused by suggestion. In the experiments now described, suggestion was obtained through the intermediary of the muscular sense. The simplest examples consisted in the influence of gesture and position upon the expression of the face. When the patient's attitudes are expressive of any emotion, the facial muscles act in harmony with them, and produce the corresponding expression of countenance. If the subject be placed in a tragic attitude, the face assumes a severe air and the eyebrows contract. The authors also say that, if the open hands be carried to the mouth, as in the act of 'throwing a kiss,' a smile immediately appears upon the lips; but it is rather difficult to understand how any fixed position or the movement of the hands towards the mouth can be suggestive of 'throwing a kiss.' Owing to the acknowledged difficulty of imparting perfectly expressive movements to a mannikin, however docile, the authors conceived the idea of proceeding in an inverse manner and acting primarily upon the physiognomy, hoping that the patients would then assume the corresponding attitudes. Localised faradisation of the facial muscles, as employed by Duchenne (of Boulogne), was used to produce the desired changes in facial expression. It is distinctly stated that electrification, applied to the face of a hypnotised subject, does not in any way modify the existing nervous state. In the very first experiments which were made in this way, the appropriate attitude and gesture succeeded to the expression imparted to the physiognomy by faradisation. In proportion as the movements of the features became marked, the entire body entered into action, and completed by its attitude the expression of the face. If the facial expressions were indifferent, so was the accompanying attitude. When facial expressions were once induced, they persisted after the removal of the electrodes; the characteristic immobility of catalepsy at once asserted itself in this, as well as in the general attitude. This state is most favourable for obtaining photographic representations; four excellent photographs accompany the paper. They represent the same patient with the expression and gesture of four distinct mental emotions most unmistakably indicated. The photographs were all taken during the first experiments attempted for this purpose.

The patient was always placed in a perfectly inexpressive attitude at the commencement of each experiment.

When contraction of the orbicularis palpebrarum superior was produced, and brought about the transverse corrugation of the eyebrows, which is expressive of anger, the whole physiognomy assumed the expression indicated, the fists became clenched, and the arms assumed a fixed position of aggression and defence. When transverse wrinkles were produced in the forehead by acting upon the occipito-frontal muscles, the eyelids were raised, the eyes became fixed, the mouth opened slightly, general astonishment was depicted on the face, and the arms were raised in semiflexion with the palms turned forwards. By causing the corrugator supercilii to contract, the expression and attitude of pain is induced. Appropriate results follow the stimulation of the zygomaticus major (laughter), levator labii superioris alaeque nasi (disdain), and depressor anguli oris (sadness). Similar results were obtained where the simultaneous contraction of two facial muscles is required to complete an expression. In all the experiments, it is believed that attitude and physiognomy act and react successively and reciprocally upon one another, until the emotion which has been once suggested is fully and appropriately expressed by both.

The phenomena have been observed very clearly in four separate cases, but in differing degrees of development. These automatic acts are to some extent susceptible of education; like all reflex acts they are improved by repetition. In cases slightly developed the first appearance of the phenomenon is of special interest; the facial expression, which is artificially caused, must be prolonged for a considerable time in order to react upon the sluggish nervous centre; the body at first remains quite immovable, presenting a marked contrast to the state of excitation in which the face appears. When, for instance, the eyebrow is being acted upon, continuous stimulation must be maintained for some minutes, but at the end of this time the fists begin to close, the body bends forward with extended neck, and finally the patient presents a picture of anger. When the experiment is repeated a second time the result is more quickly attained, and the emotion is more characteristically indicated.

The facts now described have an intimate bearing upon the study of the normal action of the nervous system. They constitute a beautiful demonstration of the automatic action of a part of the encephalon; this has already been described as cerebral automatism, or unconscious cerebration. The paper closes with a quotation from Dugald Stewart, speaking of the influence exercised by expressive movements of the physiognomy upon the psychic activity. 'When we assume any strongly expressive look, and accompany it with appropriate gestures, some degree of the correspondent emotion is apt to rise within us.'

C. S. W. COBBOLD, M.D.

ARTICLE 626.

ZUELZER ON THE SUBCUTANEOUS INJECTION OF STIMULANTS.

DR. W. ZUELZER contributes to the *Deutsche Med. Wochens.*, No. 9, 1883, a paper on the various forms of stimulants which have come increasingly into use since the publication of an article by him in the *Berliner Med. Wochens.*, 1871. Those which he mentions are sulphuric ether, campho-

rated oil (1 in 10); camphor and benzoic acid (camphor 1 part, benzoic acid $1\frac{1}{2}$, rectified spirit 12); ethereal solution of camphor (sulphuric ether saturated with camphor); liquor ammoniæ anisatus; valerianate and some other preparations of ammonia; spirit of sulphuric ether; tincture of musk (1 part of musk to 25 each of water and dilute spirit); cognac, and several ethereal oils.

None of the remedies employed have caused any bad general effects, and their action on respiration and circulation has been nearly alike in all—viz., immediate strengthening of both; but as they have generally to be repeated several times within a short space of time, it is important to avoid those which are irritating—e.g. the preparations of ammonia, and still more alcohol, which easily produces sloughing of the skin. Camphorated oil causes the least pain, but is inconvenient on account of the small quantity of camphor held in solution—a large quantity of oil having the effect of retarding the respiration. Caffeine is useful where small doses only are required, on account of its being sparingly soluble (1 in 80). It may be injected into the arm of the affected side in migraine. Large doses cause irregularity of the heart's action, dizziness and faintness in healthy individuals. Ether and the ethereal solution of camphor have the disadvantage of partially dissolving the shellac with which the end of the hypodermic syringe is fixed to the cylinder. The author has therefore had a special syringe made for him by Goldschmidt of Berlin, of which the entire upper part is of glass; the cylinder ending in a glass cone, well ground in order to afford a proper hold for the needle. The pestle is of leather, firmly bound round with yarn, and graduated for the measurement of small quantities. The whole syringe is larger than usual, and will contain 4 to 5 centimètres (68 to 85 minims) of ether. Both ether and the ethereal solution of camphor can be employed freely, as no undesirable results have been known to follow their use even in large doses; partly, no doubt, because they immediately pass off by the breath. The pain after their injection is not great, lasts sometimes for several hours, and leaves behind it some numbness of the part. One cubic centimètre (17 minims) of pure ether may be injected into each of the four extremities at one time, and may be repeated in fifteen minutes at first, afterwards at longer intervals.

The most important indication for the use of these remedies is collapse, when the patient is unable to swallow, or where a more rapid result is desired than by the stomach. The author has employed them most often in enteric fever and in cholera. When, in typhoid fever, there are great cardiac debility, small and irregular pulse, cyanosis, and coldness of the extremities, with deep collapse, the injection renders the pulse fuller and stronger within a few minutes; the cardiac contractions become more energetic, and the cyanosis disappears after one or two injections. Where the urine has been suppressed, diuresis follows their use, and Lindwurm states that the vomiting of enteric fever is arrested, a fact which the author has observed in Asiatic cholera. Leube, in Ziemssen's *Handbuch*, recommends their use in the dangerous swooning after gastric and intestinal hæmorrhage, where there is the advantage of introducing the remedy into the system without involving the affected organ. Jürgensen, in the same publication, recommends camphorated oil in pneumonia, when weakness of the heart super-

venes; and ether has been found of great service in oedema of the lungs in the same disease. Gellé (*Presse Médicale*, 1878) relates a case of convulsions, coma, and vomiting, in a child of 7½ months, where, after the injection into each thigh of 10 minims of ether, the symptoms disappeared, and the pneumonia of which they were the prodromata, although severe was recovered from.

The subcutaneous use of stimulants in midwifery also is extending. Bayr describes nine cases in Hecker's clinic, seven of acute anæmia, one of shock after a difficult labour, and one of unfavourable anæsthesia, treated in this way. Five improved suddenly, the others gradually. Von Hecker has injected as much as 10 grammes (2½ drachms) without either local or general disturbance, and he considers that the temporary irritation caused by the ether is especially beneficial in anæmic individuals. Winckel uses alternately ether and amorphous hydrochlorate of quinine, each three or four times in one day. After quoting a case given by Macan in the *Dublin Jour. of Med. Science* for May, 1876, Dr. Zuelzer goes on to recommend the treatment specially in deliveries under chloroform, and in hæmorrhages, either *post partum* or from placenta prævia, as employed by Chantreuil (*Jour. de Thérapie*, 1878).

Liquor ammoniæ anisatus has been injected in a case of morphia-poisoning related by Levinstein (*Berliner Klin. Wochens.*, 1875); and other injections proved serviceable in collapse following a suicidal dose of chloral-hydrate, 10 grammes (15½ grains) (Vehlesen, *Norsk Med. Mag. för Læger*). Finally, subcutaneous injection of ether has been employed with success in dropsy from fatty heart, where it increases, at least temporarily, the renal secretion.

ALICE KER, M.D.

ARTICLE 627.

GRAF ON MICRO-ORGANISMS AND THEIR TREATMENT BY ANTISEPTICS IN DISEASES OF THE EAR.

DR. FR. GRAF, of Frankfort (*Berliner Klin. Wochens.*, April 2), at a medical conference held last November in Frankfort, pointed out how the antiseptic treatment introduced by Professor Lister into surgery, had extended thence to other departments of medical practice, especially referring to its therapeutic and prophylactic value in obstetric and ophthalmic practice, and lastly, its employment in the special field of aural medicine and surgery. As a preliminary, Dr. Graf submits the question, How far has the presence of micro-organisms in diseases of the ear been determined, and what is their significance? In the first place, Dr. Graf remarks, the Hyphomyceti (Fadenpilze) have been met with in the external meatus and in the tympanum, by Schwarze, Wreden, Bezold, and others. This fungus belongs to the species *Aspergillus*. The parasite forms a mycelium, consisting of straight fibrils terminating in a point or a spear-like head (receptaculum). The spurs are of a yellow or black tint; on one occasion Wreden observed them of a blood-red colour. Microscopically, they are of a graceful form. Macroscopically, they appear as a yellowish-white felt. They are met with only in osseous portions of the meatus and tympanum. Schwarze assumes that it is only developed under pathological conditions. The mycelia, penetrating

the epidermis, induce a peculiar form of otitis attended with exfoliation of epidermis and serous discharge (Bezold). According to Politzer and Bezold, they can cause perforation of the membrane; in many cases they give rise to no symptoms. They cannot be regarded as harmless, as they will give rise to painful irritation, tinnitus, and itching, and deafness. Schizomyceti, spherical and staff-like, are found in the auditory passages, as a cause of otorrhœa. Masses of epithelium are found covered with bacteria, probably of different species, creating variation of symptoms, and difference in the colours and appearance of the secretions. In one case, the serous discharge was loaded with bacilli. In croupous and diphtheritic inflammation, the parasitic fungi are present. Bezold, during three years, observed this in eleven instances in otherwise perfectly healthy individuals, attended with otorrhœa. By the aid of the microscope, plentiful accumulation of micrococci may be discerned in the discharge.

Diphtheritic inflammation of the ear is often combined with affection of the throat. The membrane is difficult to remove, and leaves an ulcerating surface. Burkhardt mentions that he has met with two cases of primary diphtheritic inflammation of the central ear. The furunculi of the auditory passages have been found by Löwenberg and Pasteur to contain numerous micro-organisms. This form of ear-disease is common among rag-collectors, and may, according to Löwenberg, be communicated from one person to another. The same authority is of opinion that the use of solution of alum favours the production of the boils, since these micro-organisms thrive in solution of alum. Löwenberg also finds, in circum-auricular inflammation, both spherical and rodlike bacteria. If the ear be not assiduously cleansed, the quantity of these will sometimes be found to be very great. To these, he adds, is owing the offensive odour of aural discharges. The presence of the micrococci in the inner ear, when ulcerated, aggravates the inflammation, and tends towards fatal results. In the inner ear they meet with conditions most favourable to their growth, viz., warmth, moisture, rest, and albuminous nutriment.

Dr. Graf observes that to the presence of these micrococci may be attributed phlebitis, thrombosis, pyæmia, and septicæmia. Referring to the possibility of the destruction of periosteum as seen in gunshot wounds, Löwenberg gives the like in the case of the inner ear. Binswanger traces abscess of the brain to immigration of these micro-organisms by the connective tissue. Moos has discovered these bacilli in an abscess of the cerebellum.

The presence of micro-organisms in diseases of the ear being established, it becomes important to endeavour to discover the means of their destruction. In the first place, the most scrupulous cleanliness must be observed with regard to all instruments employed in their treatment. Hot fomentations, &c., should be avoided as favouring the growth of these minute structures. After operations upon the ear, antiseptic measures should be adopted, e.g., the injection of boric acid. If acute inflammation of the internal ear be recognised before perforation takes place, its contents may be considered to be free from micrococci. The object then is to ward these off, which is to be effected by antiseptic applications. The Eustachian tube offers a passage for the micro-organisms, but this, when inflamed and swollen, does not readily admit the passage of air. In infla-

tion by the balloon, through the Eustachian tube, the air should be made to pass through antiseptic cotton. The only mode of getting rid of fungous germs is by washing them out by antiseptics, such as carbolic acid (from 2 to 3 per cent. solution), salicylic acid (0.4 per cent.), boric acid (4 per cent.), permanganate of potash, &c. The cleansing of the inner ear is necessarily a very difficult operation, and, unless there be a free aperture in the membrane, will require the employment of a special apparatus, such as Hartmann's, or Weber's drum-tube, the air-tube being subsequently used, and all moisture mopped out by means of antiseptic wool. Boracic acid in the finest powder should then be blown into the tympanum, and the meatus closed by antiseptic cotton. This process is to be renewed only according to the presence of secretion. Bezold states that it is an easy, safe, and efficacious proceeding. The boric acid can be removed either by washing, or by blowing out, but it is harmless if left for weeks together in the cavity. Boracic acid, Dr. Graf states, is the best antiseptic, preferable by far to astringent lotions. That the antiseptic treatment is not invariably successful is not to be wondered at, considering the intricacy of the organ. Other antiseptics besides boracic acid are enumerated by Dr. Graf, viz., glyceride of borax, salicylic acid, thymol, chlorate of potash, permanganate of potash, diluted alcohol, resorcin, iodoform, and lime-water.

W. B. KESTEVEN, M.D.

ARTICLE 628.

NOTHNAGEL ON CEREBRAL DISEASE AND DERANGEMENT OF THE MUSCULAR SENSE.

At a meeting of the Imperial and Royal Medical Society of Vienna (*Wiener Med. Blätter*, March 1, 1883) Professor Nothnagel reported three cases of cerebral disease. The first was diagnosed as a case of thrombosis of the longitudinal sinus. The scalp, which was shaved, was cyanotic; and greatly enlarged veins ramified on its surface, the distension of which could be increased by pressure. The cause of this must have been some hindrance to the venous circulation within the cranium; and, although such cases are comparatively common in children, this was the first time that Professor Nothnagel had seen it in an adult. The patient was also amaurotic, with papillitis and neuro-retinitis. The eyeballs protruded, and the patient stated that this was one of the first symptoms which he noticed, accompanied by pain in the head and diminution of vision. This pointed to thrombosis of the longitudinal sinus, causing secondary amaurosis; but there was no derangement of the other nerves which would be affected by such a thrombosis, and the fact was difficult to prove. No cause for the thrombosis could be made out. There was no syphilitic history, and no evidence of a tumour. Pachymeningitis seemed to be the most likely cause; but alcoholic excess—which most commonly predisposes to pachymeningitis—had not operated in this case.

The second case presented peculiar anomalies of gait. The patient, a woman, had a tendency towards the left side in walking; this was always present, sometimes increased by closing the eyes, sometimes unaffected. Dizziness was constant in all positions of the body, but was most marked on rising to the upright posture. The left hand could not squeeze

so hard as the right, and the patient could not tell the position of the left limbs when she was not looking at them. She could not distinguish between a weight of 100 grammes and one of 300 grammes, although 500 was felt to be heavier. [The report does not say if this was confined to the left side, or applied to both.—*Rep.*] There was a slight decrease in the sensibility of the left side. The eye symptoms were negative: an opacity of the cornea on the right side could account for the small amount of difference in the sight. The nature of the process in the brain, as is most generally the case, was more difficult to determine than its seat; and Nothnagel would content himself with saying that it seemed to be situated in the grey matter of the right side, in the central convolution, or perhaps in the parietal convolution.

The gait of the third patient was different from that of the second; he swayed as he went, like a man intoxicated, and yet not like a tabetic patient. The gait was more like a cerebellar affection, but it was not cerebellar; it was referable to the pons Varolii. The nature of the process was a thrombosis of the basilar artery, and a circumscribed spot of softening in the under half of the pons. The patient had paresis of the extremities, the left arm and hand being both weaker than the right; complete paralysis of the facial nerve, with inability to wrinkle the forehead, and the electrical signs of degenerative reaction were present, found by Rosenthal to be characteristic of patches in the lower part of the pons. With regard to the eyes, there was the peculiarity, absent at the moment of demonstration, that the internal rectus was paralysed on one side and the external rectus on the other, showing that the morbid action must have involved the nucleus of the internus and abducens.

Professor Nothnagel then made some general remarks on the derangement of the muscular sense in cerebral disease. The muscular sense is disordered in the following circumstances.

1. When patients cannot distinguish between weights.
2. When they have no idea of the position of their limbs, and are unable to imitate with one limb a movement which has been made passively with the other.
3. When ataxic symptoms are present, *i.e.* when the gait is staggering, or when the patient cannot use the upper extremities for such movements as putting in a button.

The symptoms point to morbid processes in the cerebellum, corpora quadrigemina, pons Varolii, thalamus opticus, centrum ovale, or cortical substance.

In the cerebellum the affection is not of the hemispheres, but of the vermis, and Nothnagel is inclined to think only the deeper part of the vermis; but more exact knowledge on this point is wanted. Sideways inclination comes on when the crus cerebelli is injured.

In the corpora quadrigemina, the seat of lesion seems to be the posterior pair; in the pons, we know that the injury must be near the centre, but the exact spot has not been discovered. Our experience as regards the optic thalamus is very slight; one case has been observed by Hughlings Jackson where weights could not be distinguished, and Flourens believes from his experiments that the position of the limbs is not known. There is not much to say of the centrum ovale, and in the cortical substance the central convolution is now supposed to be the seat

of injury, instead of the parietal, as formerly; and the more superficial the injury is, the more will the muscular sense, and not the motility, be disturbed.

Clinically, both extremities are affected when the lesion is in the pons Varolii or cerebellum, whilst in affections of the cortical substance the muscular sense is disturbed only on one side. Staggering gait seems to occur in connection with dizziness. In cortical lesions weights cannot be distinguished, but the ataxic gait is seldom seen. In some cases of injury to the pons co-ordination only was disturbed; in others, the muscular sense also.

ALICE KER, M.D.

ARTICLE 629.

ESCHERICH ON FIBRINOUS BRONCHITIS.

FROM the medical department of the Julius Hospital at Würzburg, Dr. Escherich (*Deutsche Med. Wochens.*, Feb. 21 and 28) gives a detailed description of five cases of bronchitis fibrinosa, for the purpose of showing in how many different forms of disease the same symptom of fibrinous coagulation in the bronchi may be found. All his patients were of the female sex.

The first case was admitted into the hospital on July 25, 1882, with well-marked pneumonic symptoms, which increased in severity until her death on July 30. At the necropsy, besides pneumonic hepatisation of the lungs, fibrinous coagulations were found in the bronchi of the left side, extending as far as the second divisions, not adherent to the walls, and in a condition to have been coughed up if the embarrassment to the respiration had not been so great. Both layers of the pleura were covered with exudation, pointing to the blood as the source of the coagulation, where the change was accompanied by some alteration in the walls of the vessels, favouring transudation.

In the next two cases the fibrinous bronchitis was primary, was preceded by cough, feverishness and difficulty of respiration for a few days, and was characterised by a rise of temperature and expectoration of small plugs of fibrin, disappearing after three or four days. In one case there was also some enlargement of the spleen, and swelling of the glands.

The fourth case had a chronic course, with acute attacks at intervals, and the account of it is very full and interesting. The patient entered the hospital on Nov. 21, having been attacked fourteen days before with rigors and other feverish symptoms, with fits of coughing, in which she brought up little lumps (Prüffe). On admission her chief complaint was of those fits of coughing, which occurred from four to six times a day, accompanied with cyanosis of the face and pain down the sternum, and ending with a feeling of something having loosened in the chest, and the expectoration of one of the characteristic coagula, accompanied with mucus. The clots of fibrin were from 2 to 4 centimètres ($\frac{3}{4}$ to 1½ inches) long, were hard and brittle, not elastic, and were generally thrown up singly. Under the microscope they were found to consist of fibrinous meshes, containing fatily degenerated pus-corpuscles, and in the very interior the small octahedral crystals of Neumann and Charkot. A peculiar whitish spot was also observed for three days on the anterior wall of the trachea. On Dec. 7, fifteen days after her admission, she had frequent rigors, after which

the temperature gradually rose, the fits of coughing and the expectoration diminished, and no more plugs of fibrin or crystals were coughed up. The symptoms became now those of remittent fever, with enlargement of the spleen, and the temperature varied from about 40° C. (104° F.) in the evening to little over the normal in the morning. The menses began about Dec. 11, and on Dec. 15 there was a critical fall of temperature, the bronchitic symptoms again appearing, with coughing and expectoration of coagula exactly as before. A similar attack of pyrexia, with the accompanying symptoms, began on Dec. 25 and ended on Dec. 31, and between the attacks the condition was exactly the same as at first. Spiral casts, like those observed by Cuschmann, were found on Jan. 8 in the sputa; and on Jan. 13, with an increase in the bronchitic symptoms, a long coagulum of more than four centimètres was coughed up. From that time the symptoms were lessened, the fits of coughing ceased, and the sputa contained no special abnormal constituent. The treatment consisted in the inhalation of lime-water, and the administration of syrup of iodide of iron and iodide of potassium.

Dr. Escherich considers that the febrile attacks coincided with the formation of the coagula in the bronchi, which, after being formed, were loosened and brought up by the action of the bronchitis. The deposit in the trachea was probably the forerunner of that in the bronchi, just as the spiral casts may have indicated the extension of the disease into the bronchioles and alveoli.

The cause of the process is obscure. It cannot be an unusual form of diphtheria, from its history and course, and from the failure of inoculation of animals with the expectoration. Mader (*Wiener Med. Wochenschr.*, 1882) considers bronchitis fibrinosa to be a pemphigus of the mucous membrane; and, as the patient had been formerly treated for pemphigus of the mouth and pharynx, and had scars on the cheek and nose from the same cause, this is very likely the explanation.

The fifth case was one of transitory fibrinous bronchitis in a patient suffering from congenital stenosis of the mitral, aortic, and pulmonary valves. On the day after she was bled for the relief of urgent dyspnoea, fibrinous coagula appeared in the formerly serous expectoration. They lasted for ten days, and disappeared after the employment of inhalations of lime-water.

The author adds a case of malignant lymphosarcoma in a boy 7½ years of age, where the bronchi of the left lower lobe were found at the autopsy filled with coagulated fibrin.

Alice Ker, M.D.

ARTICLE 630.

DETTWEILER AND MEISSEN ON THE BACILLI OF TUBERCLE AND CHRONIC PHTHISIS.

Koch's discovery has advanced our knowledge of the above; nevertheless, several important questions remain to be answered. These refer to the biology of the bacilli, as conveyers of infection, and to the nature and mode of transfer of organism to organism, more especially in their causal relation to chronic phthisis in man, and the efficient combating thereof. These last doubtful points are practically of the greatest importance, and stand so prominently in

the foreground of the discussion that their solution, calls for the most energetic efforts. Drs. Dettweiler and Meissen (*Berliner Klin. Wochenschr.*, Feb. 12) observe that, following the most suitable methods of colouring, they have undertaken the examination of the sputa of phthisical patients with a view to throwing light upon the relations of the bacilli to the collective clinical phenomena of chronic phthisis. The results of their researches are here given.

The investigation included eighty-seven cases, in which the diagnosis in various stages of phthisis was established by the presence of bacilli, and elastic fibres. The dyes employed for the demonstration of the bacilli were methyl-violet and aniline, according to the directions laid down by Ehrlich. For the elastic fibres, simple pressure of the covering glass sufficed to show these.

1. Of the eighty-seven cases, bacilli were found in greater or less abundance, in the expectoration in eighty-five cases, or 97·7 per cent. In the remaining two, although the expectoration was repeatedly and carefully examined, and although all the most unmistakable signs of phthisis were present, neither bacilli nor elastic tissue were discovered in the sputum.

2. Elastic fibres were found in eighty-two out of eighty-seven cases, or 93·8 per cent. This percentage might possibly have been raised by a more prolonged search. The authors, however, submit as an indisputable proposition that, where elastic fibres are detected in sputa, there also will bacilli be found, and in certain proportion to the quantity of fibres.

3. The small fragments of caseous matter seen in the sputum are found to consist entirely of bacilli and elastic fibre. The field of the microscope then presents a fungus of blue bacilli, intermixed with the red-coloured fibres. These, however, do not preserve any constant relation to the stage of the disease. The morning expectoration was considered the most suitable for examination, as having less mucus than that of the after part of the day.

4. The relation of the bacilli to the stage and course of the disease may be stated as follows. In acute cases, with pyrexia, extensive destruction of tissue, and proportionate expectoration, the bacilli are always found in great numbers. In incipient cases they are sparse. It must not, however, be assumed that the more numerous the bacilli the more severe the disease. The reverse has been observed. Of eighty-five cases in which bacilli were found, fifty were apyretic and thirty-five pyretic. In the former, the bacilli were abundant in fourteen and sparse in thirty-six cases. Of the thirty-five with notable pyrexia, in eighteen the bacilli were numerous and seventeen moderately so. The percentage was thus 28 in the apyretic and 51 in the pyretic.

The observations hitherto made by Dettweiler and Meissen have determined the fact that the coincidence of bacilli and destructive disease is invariably noted in 95 per cent. As this point has a special significance, the authors give it further consideration. All observers have agreed to the presence of bacilli in the expectoration, while Koch's experiments have established the possibility of inoculating animals from them with tubercle, not only in the lungs but also in other organs. As the bacilli are thus the means of tubercular infection, it must be supposed that the ordinary method of transmission of these in a dry state is by respiration; at the same time a predisposition to the disease is required for their

infection. Some very cautious and impartial clinical observers, the authors remark, consider these conclusions premature and incorrect. The tuberculosis thus induced in animals, they consider as not having the slightest degree of identity, symptomatic or pathological, with chronic phthisis in man. Naunyn expressed doubts as to the similarity of the two conditions. Heiberg remarks: 'The possibility of this mode of transmission of phthisis becomes experimentally and clinically more probable, but I would warn against the conclusion that the intrinsic infection of the same organism (auto-infection) is identical with transfer from an individual (hetero-infection).' At the first Medical Congress at Wiesbaden, Drs. Leitz and Rühle objected to Koch's observations, that the proposition that phthisis is an infectious disease, and is opposed to its previous etiology—that other conditions are still required to explain it.

Other observers, on the other hand, fail to discover any difference in the origin, course, and symptomatology of chronic phthisis, and experimental tuberculosis.

It cannot be doubted, the authors observe, after Koch's remarkable experiments, that micro-organisms, developed in disease of the human lungs, may be incorporated, and thus manifest miliary tubercle. Equally certain it is that in these cases a greater or less number of bacilli are met with. To trace, however, the origin of phthisis to pure infection of these is a matter of much greater difficulty; heredity, constitution, &c., have to be considered.

Dr. Dettweiler, with reference to the resistance offered by healthy persons to the noxious agency of bacilli, observes that he has resided fourteen years in a hospital for diseases of the lungs, and that during that period only one of the female attendants had suffered by the infection. An unusually strong and healthy young woman when she entered on the service, in two years' time she manifested the signs of phthisis. Heredity was found to exist in this instance, but in two years subsequently she was again in good health. The distribution of the bacilli takes place by the expectoration, or by the conveyance of these in the air in the dry state.

W. B. KESTEVEN, M.D.

ARTICLE 631.

POWELL ON PLEURITIC EFFUSION.

DR. DOUGLAS POWELL (*Med. Times and Gazette*, Vol. ii., 1882), in a series of clinical lectures, deals with the diagnosis and treatment of pleuritic effusion. He directs attention to three cardinal signs, (1) absolute dulness on percussion, (2) displacement of the heart towards the sound side, and (3) absence of vocal fremitus. The other signs are, he considers, only supplementary. He says in effusion there is always some increase of the total diameter of the chest. He disputes the value of Bacelli's sign of the nature of the fluid, and believes in puncture with a hypodermic needle to settle this point. He gives tracings to show that the pressure of fluid in the chest is often *mil*, and that this negative pressure is essential to the production of skodaic resonance at the apex of the affected side; if positive pressure be present, this note is changed to one of higher pitch.

He also asserts that, until the pleural cavity is about two-thirds full, no positive pressure is exerted, and it is only in effusions beyond this in amount

that the diaphragm becomes depressed; but the heart is necessarily displaced from the very commencement, and hence this is a very valuable index of effusion, but no measure of intrathoracic pressure. The consequence of this negative pressure is, that fluid must be drawn off by aspiration or siphon.

He believes in aperients, diaphoretics, diuretics, leeches, and poultices, in the early stages, counter-irritation and iodide of potassium in the second week; and then comes the question of puncture if the fluid be not absorbed. He would not do this if there were good skodaic resonance down to the third rib; but if fever be absent, if there be an unfavourable family history, if the fluid rise up to about the second rib, or if the fluid be purulent, he would operate at once.

In purulent effusion, he does not advocate beginning with a free incision, but would first siphon off the fluid if it be perfectly sweet. He prefers siphon action to the aspirator. The seat of election for ordinary puncture, he thinks, is the sixth interspace in the mid-axillary line. He suggests local anaesthesia, by means of a smooth lump of ice dipped in salt and held for thirty seconds against the skin.

In purulent effusion, he thinks the point for opening the chest should be lower, the seventh or eighth interspace in the posterior axillary line. He recommends antiseptic precautions when a free incision is made. He objects to syringing the pleural cavity, but irrigates it by tubing fixed to a tin or glass funnel raised above the patient. He uses for this purpose weak solutions of iodine, carbolic acid, Condy's fluid, quinine, or boroglyceride.

In case of young children who are terrified at irrigation, he would immerse them in a warm bath coloured with Condy's fluid.

He speaks of the disputed operation of resecting one or more ribs in acute empyema, and says it has been several times performed with success by Mr. Thomas, of Birmingham. This is a complete misconception. Mr. Thomas has never performed such an operation in acute empyema. His series of cases, published in the *Birmingham Med. Review* for 1880, consisted of a number of chronic cases in which, after long-continued free drainage had failed to effect a cure, a portion of rib was excised to permit the further contraction of the abscess cavity; and this proceeding it was that had very favourable results. The operation of excising a rib in acute empyema seems to be quite irrational, except when it is impossible for some reason, such as thoracic deformity, to open the pleural cavity through the interspaces.

ROBERT SAUNDEY, M.D.

ARTICLE 632.

GARROD ON THE PHYSIOLOGY OF URIC ACID AND ITS RELATION TO RENAL CALCULI AND GRAVEL.

DR. GARROD, in the Lumleian Lectures, published in the *Brit. Med. Jour.*, March 1883, pp. 495, 547, 601; April, pp. 651, 704, 751, has taken the physiology of uric acid for his text, and its relation to renal calculi and gravel. Great stress is laid upon the comparative physiology of uric acid, as by confining our attention solely to the urinary secretion of the human subject, we thereby neglect the advantages which the study of the secretion of uric acid in various classes of animals affords us.

The metabolism of the various tissues of the body

which occurs during life is accompanied by the formation of certain products which require to be eliminated. Leaving out of consideration the inorganic salts, we have certain elements, chief among which are carbon, hydrogen, oxygen, and nitrogen to be got rid of. The lungs carry off the larger proportion of carbon and oxygen as carbonic acid, whilst the hydrogen, united with oxygen, is carried off by the skin, lungs, and kidneys in the form of water, so that there remains the nitrogen—which is eliminated almost exclusively by the kidneys, and this is carried off in the shape of urea, uric acid, and hippuric acid.

In man and in some animals urea is the chief nitrogenised principle, containing as much as 44·66 per cent. of nitrogen. This body is very soluble in water and in the animal fluids, and therefore gives little trouble in its elimination; not so, however, uric acid. This acid, combined with more or less ammonia, forms the chief part of the nitrogenised excretion of birds and reptiles, as also of almost all invertebrate animals, and a small part of that of man and the other mammalia. It is extremely insoluble in water or in the animal fluids; uric acid, when pure, being only soluble in one part in 8,000.

The salts of the acid are, however, more soluble, and a table is drawn up showing the solubilities of uric acid and its principal salts in distilled water at 100° F. It is owing to this property of insolubility that uric acid, though it forms so small a proportion of the urinary excretion in man, is so frequently a cause of disease. The third body, hippuric acid, which is only found in small quantities in the urine of man, has hitherto been regarded as comparatively insignificant; but, as the subject advances, it will be seen to be of great interest in the study of disease.

Two theories as to the origin of uric acid in the animal economy are advanced. In the first, the kidney is regarded simply in the light of a strainer of the uric acid which is formed in the blood, and passes through it. In the second, the kidney is held to be the actual producer of uric acid, and the presence of this principle in the blood and tissues is explained by resorption from the renal cells, a process which becomes more marked in proportion to the difficulty which the uric acid has in finding its way to the uriniferous tubes.

Attention is then drawn to the differences between the urine of different classes of animals both in physical condition and in chemical composition. Having given a short sketch of the character and composition of the urinary excretion of the different classes which compose the animal kingdom, the question is asked—Why is there this difference in the excretion of nitrogen? why in some animals does it take the form of urea, in others that of uric acid? The supporters of the first theory assert that it depends on the greater or less activity of the function of respiration, but this view Dr. Garrod disproves. Those who accept the second theory, and regard the kidneys as the producers of uric acid, can solve the question very readily by regarding the kidney as containing different cells, some for the formation of urea, some for uric acid, &c., and that the number of the latter cells, compared with the other excreting cells, differs in different classes of animals.

The human subject excretes on an average in the twenty-four hours about one part of uric acid for each 120,000 parts of his weight, whilst in birds the amount excreted is about $\frac{1}{150}$ th part of the body weight;

again, the blood of the bird is as free as, and often freer than, that of man from uric acid, so that it is hardly possible to look at these facts and maintain the first theory that uric acid first exists in the blood.

Another point which goes to disprove the first theory is that in the kidney cells uric acid exists combined with ammonia, but when found in the blood, or deposited in the tissues, either of man or the lower animals, it is in the form of urate of sodium. If the second view is adopted, and it is assumed that urate of ammonium is produced in the kidneys, and that it sometimes becomes resorbed into the blood after its formation, experiments show that urate of ammonium is readily converted into urate of sodium, it added to a solution containing a large excess of either phosphate or chloride of sodium. The presence of urate of sodium in the urine of man and the carnivorous mammal is explained by the fact that the urate of ammonium meets with large quantities both of phosphate and chloride of sodium, and thus becomes converted. Those who consider that uric acid is formed before it reaches the kidneys, generally fix upon the spleen as its source; and Dr. Michael Foster remarks in his work on physiology that the increase of uric acid during ague and during ordinary pyrexia seems to run parallel to the turgescence, and therefore, presumably, the activity of the spleen. As far as Dr. Garrod's experiments go he has, however, proved that the spleen of the turkey and common fowl is almost entirely free from uric acid, and that of the ox contains a good quantity, whereas the urine of the turkey or fowl contains much more uric acid than that of the ox. One fact is mentioned as regards the second theory, and that is—that the urine of the sucking calf and of the young of other herbivora contains uric acid in notable quantities, while that of the adult animal is usually free from it, making it hard to reconcile the view that uric acid is formed in the kidneys. In the second lecture Dr. Garrod proceeds to draw attention to the subject of human urine, and the alteration which it undergoes, under certain conditions, which lead to the production of gravel and calculi.

Uric acid is the chief ingredient to which attention is directed, and it is shown—

1. That uric acid exists in the urine as urate of sodium, unless the urine is very ammoniacal; then the uric acid, meeting with a large excess of a new base, is deposited as urate of ammonium;

2. That uric acid is held in solution in an acid fluid solely on the tribasic character of phosphoric acid, for with the urate of sodium is also formed the acid phosphate of sodium, which exhibits a full acid reaction, but does not possess the power of precipitating the uric acid;

3. That whenever any free acid exists in the urine, the uric acid is immediately precipitated; and

4. That the different shapes which uric acid assumes when it is precipitated from its state of solution are, either in combination with a base—*i.e.* in the form of a urate, or a free uric acid.

Attention is then drawn to the microscopic appearances of the urinary excretion of different animals, as it bears closely on the subject of renal calculi. And reflecting on the fact that in the urine of reptiles and birds uric acid in combination with some base is contained in the kidneys in the form of larger or smaller spherules, which have a tendency to aggregate and form larger spherules, may not these spherules (which, as a rule, are soon dissolved in the watery urine of the mammal) occasionally

escape solution and become the nuclei of renal calculi? Dr. Wm. Roberts, in his work on urinary diseases, says Dr. Vandyke Carter found that the actual nucleus consisted always of urates and oxalate of lime (dumb-bells and spheroids), and not of ordinary crystals of these substances. The researches of Rainey and Ord have shown that these globular forms are only produced when precipitation takes place slowly in a colloid medium; and Carter found that a colloid matrix always existed in the nuclear formations of urinary calculi. It would, therefore, appear probable that the initial step in the formation of a calculus is the exudation of some colloid mucus or some other albuminoid substance into the urinary passages.

After demonstrating the action of carbonate of lithium on small calculi, and on the spherules from the urine of reptiles, Dr. Garrod draws attention to the influence of diet on the production of renal calculi, and assumes that whatever in the way of food tends to produce gout tends to develop calculus also. Special stress is laid on the effects of saccharine food and of different alcoholic beverages on the uric and excreting function, and an important point is noticed with regard to allowing patients a proper amount of animal food, as it does not tend to increase the amount of excretion of uric acid. With regard to the causes of gravel and calculi, Dr. Garrod's experience shows him that gouty subjects, or those who inherit that diathesis, are more liable than others to gravel and calculus. Portal congestion is another point to be looked at in the prophylactic treatment of gravel and calculus. Where there is a tendency to the rapid deposition of uric acid from the urine, the value of water as a therapeutic agent is shown. Speaking of the effects of alkaline treatment, the advantage of the lithia salts is discussed. Hippuric and benzoic acids in an alkaline solution possess the power of changing and removing uric acid, so that these salts should become valuable in the way of treatment, and great benefit has resulted from the use of benzoate of sodium in cases of gout and of gravel and calculus; and if you wish at the same time to increase the quantity of the urinary excretions, then give the benzoate of potassium or of lithium. Dr. Garrod is engaged in investigating this special question, and hopes soon to publish further results for the benefit of the profession.

RICHARD NEALE, M.D.

SURGERY.

RECENT PAPERS.

633. KÜSTER.—The Treatment, by Removal, of Tumours of the Sternum and Anterior Mediastinum. (*Berliner Klin. Wochenschr.*, Feb. 26.)
634. LEMAISTRE.—The Treatment of Facial Neuralgia by Stretching the Superior Maxillary Nerve. (*Rev. de Chir.*, No. 12, 1882.)
635. JULLIARD.—The Treatment of Wounded Bladder (*Archiv für Klin. Chir.*, Band xviii.)
636. BASSINI.—A Case of Movable Kidney Fixed by Operation. (*Annali Universali di Med.*, Vol. 261.)
637. ALBERTINI.—A Short Account of Digital Division of the Pylorus performed in Two Cases by Professor P. Loreta. (*Annali Universali di Med.*, Jan. 1883.)
638. FIORANI, G.—Sciatica Resisting Ordinary Treatment Cured by Bloodless Stretching of the Sciatic Nerve. (*Ibid.*, Feb. 1883.)

639. RUATA.—On a Case of Abdominal Section (Laparotomy) for Intestinal Obstruction. (*Gazz. Med. Ital. Prov. Venete*, Jan. 13, 1883.)
640. MASSEI.—On Ozana. (*Giornale Internaz. delle Scienze Med.*, June 5 and 6, 1882.)
641. SCARENZIO.—The Cure of Hemorrhoids. (*Rendiconti del Regio Ist. Lomb.*, 1882.)
642. LAMPUGNANI.—On the Radical Cure of Hydrocele. (*Gazz. Med. Ital. Lomb.*, 1882.)
643. SHILLITOE.—Position as an Aid to the Reduction of Irreducible Hernia. (*Lancet*, Dec. 1882, p. 1073.)
644. THORNTON.—Deaths from Heart-Clot after Operation on the Abdomen. (*Lancet*, Dec. 1882, p. 1095.)
645. BARKER.—Partial Excision of the Rectum. (*Brit. Med. Jour.*, Jan., p. 6.)
646. HEATH.—Calculus in the Female Bladder. (*Lancet*, Dec. 1882, p. 1067.)
647. CASE.—Sponge-Grafting. (*Brit. Med. Jour.*, Jan., p. 51.)
648. SPANTON.—A Method of Treatment for Varicocele. (*Brit. Med. Jour.*, Jan., p. 53.)
649. KENTON.—Burn-cicatrix of the Lower Lip Treated by Teale's Method. (*Brit. Med. Jour.*, Feb. 1883, p. 310.)
650. SHUTER.—Subperiosteal Amputation at the Hip-Joint. (*Brit. Med. Jour.*, Feb., p. 314.)
651. SPANTON.—Ligature of the Vertebral Arteries for Epilepsy. (*Brit. Med. Jour.*, Feb., p. 358.)
652. GREEN.—A Successful Case of Gastrotomy. (*Lancet*, Feb., p. 190.)
653. JACKSON.—Rupture of Axillary Artery in Attempted Reduction of Old Dislocation of Humerus. (*Brit. Med. Jour.*, Feb., p. 207.)
654. ROBINSON.—Discharges of Pus from the Male Urethra which are not Gonorrhoeal. (*Brit. Med. Jour.*, Feb., p. 203.)
655. MAHOMED.—Cancer of an Undescended Testicle. (*Lancet*, Feb., p. 233.)
656. ROSE.—Double Hare-lip in a Man, aged 32. (*Brit. Med. Jour.*, Feb., p. 202.)
657. KING.—Undescended Testis Simulating Intestinal Obstruction. (*Lancet*, Feb. 1883, p. 319.)
658. BRUCE.—Foreign Bodies in the Air-Passages. (*Lancet*, Feb., pp. 271 and 314.)
659. McDUGALL.—Rupture of the Urinary Bladder. (*Lancet*, Feb. 1883, p. 269.)
660. WHITSON.—Compound Fracture of Clavicle: Fragments sutured by Wire. (*Brit. Med. Jour.*, Jan., p. 13.)
661. BELLAMY.—Fatty Tumour between the Ribs. (*Brit. Med. Jour.*, Jan., p. 13.)
662. STEIN, T.—Disappearance of a Tumour under the Influence of Erysipelas. (*Pract.*, 1882, No. 16, pp. 262-3.)
663. DANNENBERG, A.—On Healing of Wounds of the Spleen. (*St. Petersburg Inaugural Dissertation*, 1882, p. 33.)
664. MEUSEL.—Two Cases of Intestinal Fistula treated by Abdominal Incision and Intestinal Suture. (*Deutsche Med. Wochenschr.*, Feb. 14.)
665. HEIMANN.—The Treatment of Artificial Anus. (*Deutsche Med. Wochenschr.*, Feb. 14.)
666. SCHÜLLER.—The Origin of Inflammation of Joints. (*Deutsche Med. Wochenschr.*, Feb. 21.)
667. CABOT.—Nephrotomy for Hydronephrosis. (*Boston Med. and Surg. Jour.*, Feb. 22.)
668. NANCREDE.—A Subcutaneous Tubercular Tumour. (*Boston Med. and Surg. Jour.*, April 8.)
669. LABBÉ.—The Treatment of Furuncle. (*Société de Thérap.*)
670. PENOT.—Diffuse Phlegmon of the Thorax. (*Revue de Thérap.*)
671. VARICK.—Amputation at the Hip-Joint by Trendelenburg's Method. (*Amer. Jour. of Med. Sciences.*)
672. ROBERTS.—The Uselessness of Styptics. (*Philadelphia Med. Times*, Jan. 27.)
673. JORDAN.—Ventral Hernia. (*Birmingham Med. Review*, Feb.)

ART. 633. *Küster on the Treatment, by Removal, of Tumours of the Sternum and Mediastinum.*—Dr. Ernst Küster records (*Berliner Klin. Wochens.*, Feb. 26) the following case, and submits remarks relative to the removal of tumours from the anterior mediastinum. W. M., aged 30, a strong, well-built man, was received into the hospital at Königsberg in October last. He considered himself in good bodily health, and asserted that he had never suffered from syphilis. In the winter of 1881-82 he began to experience a sense of dull pain in his chest, and a swelling appeared on the right border of the sternum, slowly increasing in size. He was for six weeks submitted to treatment by iodide of potassium, which had no influence over the tumour. This was about the size of a goose's egg, attached to the right border of the sternum, at the level of the third and fourth ribs, between which by a pedicle it passed down into the chest. Its surface was smooth, the integuments movable, and of a reddish colour. The tumour was elastic, not painful on pressure, and free from pulsation. The heart's impulse did not exceed its normal bounds; its sounds were healthy, as were also the respiratory sounds. An exploratory puncture gave exit to a drop of blood, whilst the end of the needle felt as if movable in a cavity. Diagnosis fluctuated from gumma to sarcoma, and aneurism of the ascending aorta. Repetitions of puncture, however, excluded the latter; the denial of syphilis seemed to exclude gumma; it was therefore believed to be sarcoma. An operation was determined upon, and performed on Oct. 27. It was necessary in the first place to remove a portion of the cartilages of the ribs. A semicircular flap was formed around the base of the tumour, and an exploratory puncture was made in order to ascertain that it was a solid mass. The cartilages of the ribs were then divided, and the right half of the sternum was chiselled away. The attachments of the tumour were then ascertained. It was found to pass into the anterior mediastinum by a narrow neck, then to spread out into a large mass. By drawing this forward, its macroscopic examination was facilitated, from which it became probable that it was not a gumma, but a sarcoma. In dividing its adhesion, the internal mammary artery was wounded. The hemorrhage was arrested by acupressure. In detaching the tumour from the diaphragm and pericardium an aperture was made into the right pleura, followed by collapse of the lung; the aperture was closed by a fold of carbolised gauze, and the removal of the mass effected without further mishap. A fresh piece of carbolised gauze was applied to the wound of the pleura, its end being allowed to hang out of the flap of integument, which was then closed with drainage tube and dressed by Lister's method. During the first twenty-four hours after the operation there was some slight dyspnoea, but this passed off; the healing process proceeded satisfactorily, so that in four weeks the patient was considered recovered, a depression only remaining at the site of the tumour. Macroscopic and microscopical examination determined the tumour to be a gumma. On being cut into, the centre was found to consist of a soft yellow mass, filling a cavity, and consisting of round and short spindle cells. The whole was enclosed in firm connective tissue. The question arises—since the result showed that the tumour was not a sarcoma—whether, failing an exact diagnosis, the operation was warranted. The presence of a gumma with softened centre was (Dr. Küster urges) a source of

danger from the probability of its bursting internally. In the present instance, the use of iodide of potassium had offered no hope of the resolution of the tumour. Only one similar operation, Dr. Küster observes, is on record (König, *Centralbl. für Chir.*, 1882, No. 42)—that of the removal of an osteo-sarcomatous tumour from a woman, aged 35 years, with a successful result, although the internal mammary arteries, the pleura, and the pericardium had been wounded. Dr. Küster considers that, with the antiseptic dressings now used, the operation may be had recourse to for the removal of non-malignant growths in this region. Cases of the removal of tumours from the surface of the sternum are adduced by Dr. Küster, but these are not parallel with a gumma in which retrogressive changes were evidently in progress, and might therefore have ended without the risks of so serious an operation.

W. B. KESTIVEN, M.D.

634. *Lemaistre on the Treatment of Facial Neuralgia by Stretching the Superior Maxillary Nerve.*—Dr. J. Lemaistre reports, in the *Revue de Chir.*, No. 12, 1882, a case of obstinate facial neuralgia on the right side successfully treated by stretching the superior maxillary nerve. The patient was a man, aged 54, who had suffered for eight years from gingivitis of the upper jaw, and gradually lost all his upper teeth. It is probable, the author states, that this affection had been the first manifestation of trophic disturbances, produced under the influence of some lesion of the superior maxillary nerve. All the non-ganglionic branches of this nerve were affected, with the exception of the posterior dental. It is difficult to explain why this nerve, which leaves the trunk of the superior maxillary nerve just as this enters the infra-orbital canal, remained free, whilst the orbital branch, which arises further backwards, and immediately in front of the foramen rotundum, was one of those affected. An incision having been made over the inferior margin of the orbit down to the bone, the orbital periosteum was stripped away with a spatula as far as the speno-maxillary fissure. The contents of the orbit were then raised, and the upper wall of the infra-orbital canal broken away from the sphenoidal fissure to a point about one-fifth of an inch behind the infra-orbital ridge. The nerve, having been freely exposed by section of its sheath, was raised on a blunt hook and forcibly extended. The infra-orbital artery was not observed at any stage of the operation; and it is suggested by the author that the primary cause of the neuralgia and the gingivitis might have been some lesion of this vessel. The stretching of the nerve was followed by complete paralysis of sensibility, both in the parts supplied by the affected branches and also by the inferior dental. This paralysis commenced to diminish on the eighth day after the date of operation, and after an interval of two months and a half had completely ceased. The stretching of the nerve ought, it is held, to be carried to a full extent. From experiments made on the dead subject, the author has proved that in young and well-developed men a traction of 5 kilogrammes (11 lbs.) is necessary for tearing the nerve. The subjects, however, on which the author experimented were not very fresh. He thinks that, in dealing with the superior maxillary nerve in the living male subject, a traction of 4 kilogrammes (8.83 lbs.) may be safely applied. With the female cadaver, however, it was found that the nerve may be torn through by a traction of 2 kilogrammes, or even less than this. The surgeon, therefore, is ad-

vised to apply less force in performing this operation on the female. That the elongation affects the whole extent of the nerve, is proved by some observations by the author on the dissected cadaver, and also by the clinical fact that in his case the posterior dental branch was paralysed after the operation. As the superior maxillary nerve from the foramen rotundum to the supra-orbital ridge is not much more than one inch in extent, one may readily perceive how traction can be transmitted along so short a tract. The author does not think that injury to the Gasserian ganglion is likely to occur during the stretching. Laceration, when produced, always takes place in the infra-orbital portion of the nerve; and traction extending to the intracranial portion of the nerve could hardly displace this ganglion, which is covered by and closely adherent to the dura mater. In conclusion, it is held that stretching of the superior maxillary nerve, practised in its orbital tract, may be applied with fair prospect of success in all cases of neuralgia of this nerve, and that success is more likely to be obtained from this operation, than from Carnochan's proceeding of breaking through the anterior and posterior walls of the antrum.

635. *Julliard on the Treatment of Wounded Bladder.*—In the *Archiv für Klin. Chirurgie*, Band xviii., Heft 2, an instance is recorded by Professor G. Julliard, of Geneva, of a large rent of the bladder treated successfully by suture. This injury occurred through traction to a woman aged 39, during an operation for the removal of a very large and extensively adherent ovarian tumour. The wound, which was $4\frac{1}{2}$ inches in length, extended obliquely along the posterior wall of the bladder, the interior of which was freely exposed. As a catheter had been used just before the operation, no urine passed into the peritoneal cavity. After the removal of the tumour, and the closing of the wound in the bladder, a glass drainage-tube was inserted into the abdomen near the lower angle of the external wound, and a gum-elastic catheter was passed into the bladder and allowed to remain there. This case progressed in a very satisfactory manner, and, at the end of the second month, the patient was quite well. The urine, on the first and second days after the date of operation, contained blood; on the third day it was quite free from blood, but presented the dark staining of carbolio acid; and on the fifth day it was quite normal. Neither pus nor mucus was ever observed in this secretion, and it always remained free from turbidity. The catheter was removed on the sixth day, and was subsequently passed every two hours in order to relieve the bladder. From the tenth day, the patient was able to empty the bladder without using any instrument. In his comments on this case, Dr. Julliard states that the wall of the bladder was abnormally soft, and was torn through on the application of but very slight force. The copious hæmorrhage which usually follows laceration of the bladder was not observed in this patient. There was not, it is stated, the least trace of hæmorrhage—a sure indication that the vesical vascular system had become atrophied in a remarkable manner. The posterior wall of the bladder, it is thought, had degenerated in consequence of long-continued and intimate adhesion to the ovarian tumour, and of consequent immobility. In closing the wound Dr. Julliard used fifteen catgut sutures, each of which was applied according to Lembert's method, the mucous membrane not being penetrated, and broad surfaces

of the peritoneal coat being brought into contact. A suture was applied at a distance of about half an inch from each extremity of the wound, in order to close the rent completely, and to prevent leakage of urine into the peritoneal cavity. In the after-treatment, continuous catheterism is recommended to be observed during the first five or six days, and until the wound in the vesical wall is no longer liable to be disturbed by any accumulation of urine in the bladder, or to suffer from the frequent introduction of a catheter. The prolonged presence of an instrument in the injured bladder, though it might risk irritation of the mucous membrane, will guard efficiently against the dangers likely to result from the presence of urine in a recently injured bladder, viz., irritation of the wound through contact with this secretion, and by movements of the irritable bladder made in order to get rid of its fluid contents.

W. JOHNSON SMITH.

636. *Bassini on a Case of Movable Kidney Fixed by Operation.*—This case is described in the *Ann. Univ. di Med.*, Vol. 261. The patient, a married woman, aged 27, had for three years suffered much from pain and sensation of weight and dragging in the right hypochondriac and iliac regions, increased by walking and exertion, gastric catarrh, and habitual constipation. A movable tumour was found, and clearly made out to be the kidney. As no kind of treatment or support afforded any relief, an operation was determined on. Anæsthesia was produced by bichloride of methylene, and all antiseptic precautions were followed. The patient placed on the left side, an incision, about 16 or 18 centimètres long, was made in the right lumbar region along the external border of the sacro-lumbar muscular mass, extending from the last intercostal space to the crest of the ilium. On cutting carefully through the parietes, the circumrenal fatty connective tissue was reached. The kidney was not *in situ*, but could be felt through the abdominal wall in the iliac fossa. An assistant pushed it up with his hand and kept it in position, while the operator, breaking through the fatty connective tissue, easily discovered the convex border and the greater part of the posterior surface. The first suture was put in the convex border; the needle traversed the fibrous capsule of the kidney. The circumrenal fatty connective tissue was raised and drawn into the wound, through the tissues of the wound directly under the lower edge of the last rib, and again through the circumrenal connective tissue. A second suture was applied on the posterior surface of the kidney, and in the deep tissues of the posterior lip of the wound. A third suture was placed in the same way in the anterior surface of the kidney, at the convex border and the deep structures of the anterior margin of the wound. With these three sutures the kidney was held in position. For greater security, the circumrenal fatty connective tissue of the lower half of the kidney was united by four sutures to the tissues of the wound. Catgut sutures were used. A large drainage-tube was applied deeply, and a small one superficially, and the wound was sewed up with seven points of deep sutures and twelve superficial. The patient bore the operation well, and her subsequent course was satisfactory. There was no fever, and the urine remained normal. The wound was dressed on the fourth day, and the drainage-tubes were removed. On the ninth day it was dressed for the second time. Cicatrization was complete; the superficial sutures were removed. On the twentieth day the patient was discharged cured. She has since come twice

to show herself. She has lost all her former pains and is perfectly well, and the kidney can be felt in its normal situation.

637. *Albertini on Digital Divulsion of the Pylorus.* Dr. Albertini describes, in the *Annali Univ. di Med.* for January, two cases in which this operation was performed by Prof. P. Loretta. Case 1. A man, aged 47, suffered from uncontrollable vomiting, severe pain in the hypogastrium, insomnia, and wasting. A diagnosis was made of old ulcer of the pylorus, with residual cicatrix causing constriction. The patient had received no benefit from treatment. The stomach was first washed out and emptied as completely as possible. On the abdomen being opened, adhesions were found in the neighbourhood of the pylorus, from local peritonitis, the consequence of a severe blow. These adhesions were broken down, and the stomach seized near the lesser curvature, drawn out, and entrusted to an assistant. An incision was made in it transversely for 5 or 6 centimètres. Two Péan's forceps, modified by the addition of a small transverse handle, L-shaped at the upper part, were applied to the lips of the wound. Introducing carefully the index finger of the right hand, the operator felt the point of the finger obstructed by a hard ring at the pylorus; pushing his finger through this and after partly withdrawing it, he introduced the index of the other hand, and sought by *divulsion* to overcome the stricture. The resistance was scirrhus-like in hardness; but, after several attempts, and using all the force he was capable of, he succeeding in overcoming it. The stomach was then stitched up, as Gely recommends, with straight needles and carbolio silk. Everything was returned to its place, and the abdominal parietes were united with interrupted sutures of silver wire. All antiseptic precautions were used and chloroform given. All went well; the patient was discharged after thirty days, having gained 15 kilogrammes (33 lbs.), and was able to resume work as a railway guard. After four months he ate salads, polenta, &c., without indigestion, and was in perfect health. Case 2. A youth, aged 18, had suffered for eight years with vomiting, the bowels acting every six or seven days only. Emaciation was extreme. The diagnosis was pyloric stenosis from cicatricial tissue, with great dilatation of the stomach. The operation, lasting forty-eight minutes, was performed in the same manner, but the wound in the stomach was stitched up with a single straight needle and carbolio silk. For the first three days only ice and milk were given; then broth, afterwards bread, meat, and wine. The bowels acted naturally; there was no nausea, hiccup, or vomiting. Twenty-four days afterwards he ate with appetite, digested well, and had gained 12 kilogrammes (26½ lbs.). Two plum-stones were found in the stomach near the pylorus; the patient had not eaten this fruit for twenty months. The enormous dilatation of the stomach added difficulty to the operation; the pylorus, pushed out of its usual site, was not easily reached; and the traction of the dilated parietes of the stomach had caused it to be reduced to a small straight fissure.

638. *Fiorani on Sciatica Resisting Ordinary Treatment, Cured by Bloodless Stretching of the Sciatic Nerve.*—Dr. Fiorani related this case before the Royal Lombardian Institution (*Annali Univ. di Med.*, Feb. 1883). M. M., aged 49, a female, had suffered for six or seven months from severe sciatica of the right side. She had been subjected to the usual treatment, blisters, sedatives, &c., with

slight and temporary benefit only. Dr. Fiorani determined to try Prof. Trombetta's plan of bloodless stretching of the sciatic nerve, that is, forcible flexion of the thigh on the body with the leg extended on the thigh. The first attempt without chloroform failed, as in the position in which the patient was lying it was impossible to depress the leg on to the body. The sciatic pain was, however, temporarily relieved, but returned the next day. The patient was now chloroformed on the operation table and the thigh forcibly flexed, with the leg extended, until the foot reached the side of the head. During this manœuvre a crash was heard, as if something were torn or lacerated. The limb was held in that position for some seconds, and then brought back. A few minutes afterwards, the sciatic pain had disappeared; but the whole posterior part of the limb, especially the popliteal space, was very tender, in spite of which she could stand and take several steps, which before was impossible. The back part of the limb swelled and became black from ecchymosis from the middle of the thigh to the middle of the leg; this, however, soon disappeared with rest in bed and simple treatment. Ten days afterwards she was discharged cured, and remained well two months later. Fiorani thinks that the femoral vessels cannot be unduly strained; in experiments on the dead body, he always found the vessels relaxed. If there be any rigidity or contraction of the muscles, those which arise from the tuberosity of the ischium, and are inserted in the tibia and fibula (the semitendinosus, semimembranosus, and biceps), run the risk of injury. Anæsthesia should therefore be pushed to complete relaxation of the muscles. When the thigh is flexed on the trunk with the leg extended, the sciatic nerve is subjected to an enormous strain. The gemelli and the quadratus femoris lie between the nerve and the bone; the quadratus may be entirely divided by the nerve; the gemelli escape, because their tendinous part only is subjected to the pressure. The sciatic is stretched from two to eight centimètres, a traction which experiment shows to require from 80 to 100 or even 130 kilogrammes (176 to 220 or 286 lbs.).

639. *Ruata on a Case of Abdominal Section (Laparotomy) for Intestinal Obstruction.*—Dr. Ruata says (*Gazz. Med. Ital. Veneto*, Jan. 13, 1883) that this operation does not give the same good results as other abdominal sections, for two reasons: it is not undertaken soon enough, and, secondly, the intestines escape from the abdominal cavity; hence their inevitable damage and the greater length of the operation. As soon as the progress of the case has established the diagnosis that we have to deal with an internal mechanical obstruction, of which medical treatment does not suffice to remove the cause, the operation should be undertaken (Gallozzi). After opening the abdominal cavity, if it be difficult to discover the cause of the obstruction without allowing the intestinal coils to come out, the author recommends that an incision should be made in the distended intestine as low down as possible, and that the edges of the cut intestine should be stitched to the lower part of the abdominal incision (as in colotomy). An artificial anus is thus established beneath the umbilicus, which will close up if in course of time the internal obstruction ceases.

640. *Massei on Ozena.*—In the treatment of ozena Prof. Massei (*Giornale Internaz. delle Scienze Med.*, June 5 and 6, 1882) says that if the mucous membrane be hypertrophied and the nasal cavity constricted,

dilatation may be necessary. This is much better accomplished, as Massei recommends, by the douche of compressed air, simple or medicated, than by bougies. To cleanse the nasal cavities from the masses which encumber them, and to prepare the ground for other remedies, is the first indication. Weber's douche acts better than any other, and a simple alkaline saline solution is better than astrinents. Salt water or common salt dissolved in water (1 in 100) does very well. Afterwards some antiseptic wash must be used. Massei prefers the following: salicylic acid 1 gramme, borax two grammes, water 500 grammes, with sufficient citrate of ammonia to dissolve the salicylic acid. He prefers the insufflation of powders or the application of ointments to pencilling with caustics. He finds calomel answer as well as any. If the exudation be thick and tenacious, and crusts form, ointments are preferable. He recommends inodorous iodoform, as in the following formula, iodoform, 1 gramme; balsam of Peru, 2 grammes; vaseline, 20 grammes; the iodoform or balsam of Peru being mixed together before adding the vaseline—or borax and glycerine, 1 in 5. Inhalations of iodine may also be useful. The douche must be always used warm. Constitutional treatment must not be neglected. Iodide of iron and cod-liver oil should be given to scrofulous patients. Marine and sulphur baths are often of great service.

641. *Scarenzio on the Simplest and Safest Method for the Radical Cure of Hemorrhoids*.—Scarenzio recommends (*Rendiconti del Regio Ist. Lomb.*, 1882) the elastic ligature in preference to all other and more complicated methods, as being the safest and most effectual for the removal and radical cure of hemorrhoids. Its gradual action allows time for the formation of a firm clot in the veins, and the mass separates after two or three days, leaving a simple cicatrising wound. The pain caused is trifling, and only lasts a short time. He has operated often by this method, and has never seen any bad effects to follow.

642. *Lampugnani on the Radical Cure of Hydrocele*.—Lampugnani (*Gazz. Med. Ital. Lomb.*) reports seventeen cases of hydrocele cured by injection of a solution of chloral, 2 to 8 grammes of chloral dissolved in an equal quantity of water for each injection. In one case only was it necessary to repeat the injection, when only half the original quantity was used (2 instead of 4 grammes). The chloral caused very little pain, and succeeded in several cases which had resisted the repeated injection of iodine.

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643. *Shillitoe on Position as an Aid to the Reduction of Irreducible Hernia*.—Mr. Shillitoe, in the *Lancet*, Dec. 1882, p. 1073, describes a case, in which a lady, aged 48, consulted him for an irreducible left femoral hernia, which had existed for three years. After several attempts at reduction by manipulation, Mr. Shillitoe suggested that his patient should try to remain with her head downwards a few minutes two or three times a day. The first day or two the patient could not bear such a posture for many minutes, but, on the sixth day of trial, she was able to continue the position about seven minutes, and the hernia gradually yielded. [Section 951 : 5 of the *Medical Digest*, among a host of papers upon this subject, refers to one by Mr. Arnott in 1860, which showed that the plan dated many years back. Mr. Thornton advises raising the

foot of the bed, a plan that has more than once succeeded admirably in the reporter's practice.—*Rep.*]

644. *Thornton on Deaths from Heart-Clot after Operations on the Abdomen*.—Mr. Knowsley Thornton, in the *Lancet*, Dec. 1882, p. 1095, disputes Mr. Lawson Tait's statement, that his statistics show that abdominal operations do far better without Listerism than with it. Mr. Thornton gives the figures of Dr. Keith's cases, and also those of Mr. Tait and himself; these show that Mr. Thornton has a slight advantage in adopting Listerism over the other two. With regard to the action of carbolic acid on the kidneys, Mr. Thornton has not met with the dangerous results that others have. In oöphorectomy, Mr. Tait's special operation, the mortality was $\frac{9}{10}$ per cent., whilst Mr. Thornton has performed fourteen oöphorectomies without a single death, and practised strict and careful Listerism in each case.

645. *Barker on Partial Excision of the Rectum: Recovery*.—Mr. A. E. Barker, in the *Brit. Med. Jour.*, Jan. 1883, p. 6, publishes the notes of a case in which he removed a portion of the rectum for malignant growth in a man aged 58. The facts of the case are as follows. The patient was admitted into hospital, complaining of having for a few months passed blood with his stools, also of pruritus ani, and flatulence; he had lost flesh lately. On examining, a growth was felt an inch and a half up the rectum, reaching upwards more than an inch, and laterally over the posterior and right aspect of the gut to a somewhat greater extent. The growth was felt to be freely movable on the structures lying outside the rectum. An operation was considered desirable, and Mr. Barker removed the growth, partly with a bistoury and partly with the cautery; the wounded surface was dressed with salicylated wool, and a drainage-tube inserted. The patient made a rapid recovery, leaving the hospital twenty-eight days after the operation. A year afterwards, the patient was in good health and comfortable; the bowel was rather constricted, but gave no inconvenience.

646. *Heath on Calculus in the Female Bladder*.—Mr. Christopher Heath in the *Lancet* of Dec. 1882, p. 1067, describes removing a calculus from the female bladder by means of rapid dilatation. The patient after the operation had no incontinence of urine, and, instead of passing offensive ammoniacal urine, the secretion was acid from the first. This, Mr. Heath says, is the invariable result of mopping out the bladder with a solution of nitrate of silver (a drachm to the ounce). Extraction of small stones through the urethra with polypus-forceps or a scoop is readily performed, if the urethra be rapidly dilated; but if the stone be large it is necessary to break it up and wash out the fragments. Lithotomy in the female is rarely required, and resolves itself into a very simple proceeding—viz., cutting through the vaginal and vesical walls where they are in contact, and closing the wound immediately by means of wire sutures, so as to prevent the formation of a vesico-vaginal fistula.

647. *Case on Sponge-Grafting*.—Mr. Perkins' Case, in the *Brit. Med. Jour.*, Jan. 1883, p. 51, furnishes notes on six successful cases of sponge-grafting. The method adopted is, to get the finest Turkey sponge, free from grit, &c., and slice it as thin as possible, and soak it in acid nitro-hydrochloric oil for two or three weeks. Then, after repeated washings with water, it has a soft, velvety feel; this, neutralised by washing with liquor ammonie and steeping in carbolic acid solution (1 in 20) for twenty-four

hours, is ready for use. A healthy granulating surface is required for the application. The granulations are scratched until they bleed slightly; then pieces of the prepared sponge are applied; if the wound be only about the size of a five-shilling piece, it is to be covered entirely, but if larger it is best to only partially cover it, and then dress it with oiled silk and sanitas gauge. On the second day it requires dressing again, when the grafts will be firmly adherent by the coagulum; afterwards, as a rule, it need only be dressed every other day.

648. *Spanton on a Method of Treatment for Varicocele*.—Mr. Spanton, in the *Brit. Med. Jour.*, Jan. 1883, p. 53, gives a woodcut showing the manner in which he applies a subcutaneous ligature in case of varicocele. A needle, threaded with silk or catgut, is passed between the vas deferens and spermatic vein, and a loop left on one side, and the free ends on the opposite. A second needle, similarly threaded, is then passed in the opposite direction between the vein and the skin, and withdrawn, leaving a loop as before. One of the threads is then passed through the loop on each side, the ends drawn together and firmly tied. The threads are then cut off short, and the ligature sinks away from the skin punctures. This method is simple, and consolidation takes place in the usual way. [Reference to the *Medical Digest* would have shown that a similar plan was in use twenty years ago, and was ably described by Mr. Barwell in 1875. *Id.* sec. 1230 : 2.—*Rep.*]

649. *Renton on Burn-cicatrix of the Lower Lip Treated by Teale's Method*.—Dr. Renton, in the *Brit. Med. Jour.*, Feb. 1883, p. 310, reports a case in which he performed Mr. Teale's operation for burn-cicatrix of the lower lip. The patient, a woman aged 21, had eleven years previously met with a severe burn, in consequence of which the lower lip had become everted and drawn downwards towards the sternum by dense cicatricial bands. After a preliminary operation, Dr. Renton decided to perform Teale's operation. The everted lip was divided into three equal parts, the alveolar portion of the central part was freely incised, and two vertical incisions, each an inch and a half long, were made down to the bone from each end of the central one, and then carried upwards to a point one inch beyond the angle of the mouth. The flaps thus marked out were dissected up, brought over the everted lip, and united by a few points of silver suture. The head was fitted in a suitable apparatus during the healing process. The patient made a good recovery, being much improved in appearance and able to take food better.

650. *Shuter on Subperiosteal Amputation at the Hip-joint*.—Mr. Shuter, in the *Brit. Med. Jour.*, Feb. 1883, p. 314, gives an account of a case in which he performed subperiosteal amputation at the hip-joint on a lad aged 18, and afterwards showed the patient at the Clinical Society. The facts of the case were briefly these. Acute necrosis, without suppuration, in the lower end of the left femur, was diagnosed; leading to septicaemia and secondary inflammation of the left hip-joint. It was agreed that nothing short of amputation would save the boy's life, and the following operation was performed. A circular amputation through the junction of the middle and lower third was done, followed by a longitudinal incision on the outer side of the femur down to the bone, the periosteum stripped off and left in the flaps, and the whole of the boneenucleated. The patient made a good and rapid recovery.

651. *Spanton on a Case of Ligature of the Vertebral Arteries for Epilepsy*.—Mr. Spanton, in the *Brit. Med. Jour.*, Feb. 1883, p. 358, notes a case of a boy, aged 11, in whom he ligatured both vertebral arteries for epileptic fits. The patient improved in condition until about three weeks after the second operation, when pneumonia appeared at both apices and he died in a few days. In remarking on this case reference is made to Dr. Alexander, of Liverpool, who first called attention to the fact that ligature of one or both of the vertebral arteries had a more or less curative influence upon epilepsy.

652. *Green on a Successful Case of Gastrostomy*.—Mr. King Green, in the *Lancet*, Feb. 1883, p. 190, gives the notes of a successful case of gastrostomy which he lately performed according to Howse's plan of dividing the operation into two portions, separated by an interval of a few days. The patient, a lady, aged 56, had a tumour of the oesophagus about the region of the cricoid, which prevented anything but thin solids from being swallowed. The first part of the operation was done on Sept. 11, and six days afterwards the stomach was opened and a small India-rubber tube inserted, the patient taking two pints of fluid food the next day. Twelve days after the operation the patient went out in her carriage. Symptoms, however, of another kind set in. Inspiratory stridor became persistent, and on the twenty-third day from the first operation tracheotomy was performed. The patient again made a rapid recovery, being out again in three weeks. Fifteen weeks from the first operation the patient was in a position of comparative comfort.

653. *Jackson on Rupture of the Axillary Artery, in Attempted Reduction of Old Dislocation of Humerus*.—Mr. Arthur Jackson, in the *Brit. Med. Jour.*, Feb. 1883, p. 207, reports a case of sub-coracoid dislocation of the humerus in a man sixty-two years of age. Six weeks after the injury patient was put under chloroform with a view of reducing the dislocation. After slight attempts at reduction, with the heel in the axilla, a tumour was seen under the pectoral muscle, and no pulse was felt at the wrist. The patient was put back to bed, and on the following day it was decided to cut down on the artery and ligature both ends. This was done with much difficulty, the vessel being distinctly atheromatous. The patient died two days after the operation.

654. *Robinson on Discharges of Pus from the Male Urethra which are not Gonorrhoeal*.—Dr. T. Robinson, in the *Brit. Med. Jour.*, Feb. 1883, p. 203, draws attention to cases where there is a copious muco-purulent discharge from the male urethra, not due to gonorrhoea. He cites a case of a patient who consulted him with what, to all external appearances, was gonorrhoea. The patient said that during the pregnancies of his wife he always had a similar condition, not about the parturient period, but during the earlier months of pregnancy. Another case is given where a man, aged 42, with gouty history, who was in the navy, suffered from a discharge a week after coming on shore, owing to excessive living. After four days' treatment with barley water, broths, vegetables, &c., and frequent doses of acetate of potash, the discharge was completely cured. Patients with enlarged prostates, or troubled with stricture, often have a muco-purulent discharge which is not gonorrhoeal, and it is some of these cases, Dr. Robinson thinks, which furnish examples of rapid cures of clap by various remedies.

655. *Mahomed on Cancer of an Undescended Testicle.*—Dr. Mahomed in the *Lancet*, Feb. 1883, p. 233, records a case of cancer of an undescended testicle. Many years ago Dr. G. Johnson and Mr. Arnott showed that undescended testicles were very prone to malignant disease. In Dr. Mahomed's case no operation was performed, Mr. Howse refusing to do so on account of the patient's leg being swollen. At the *post mortem* examination the tumour was found hanging over the side of the pelvis by a small thin pedicle consisting of the spermatic cord, and it could have been removed during life with the greatest ease. Secondary growths were found in the lumbar, retro-peritoneal, mediastinal, and bronchial glands. Microscopical examination of the tumour-tissue showed that it was ordinary carcinoma.

656. *Rose on a Case of Double Hare-lip in a Man, aged Thirty-two.*—Mr. Wm. Rose, in the *Brit. Med. Jour.*, Feb. 1883, p. 202, records a case of double hare-lip in a man, aged 32, in which he operated on the lip before attempting to close the palate, as the patient wished to be relieved of his deformity rather than to have his palate cured. The deformity was very great, the intermaxillary bone projecting considerably, and in the projecting part one of the central incisors was situated, also the stump of another surmounted by the central portion of the upper lip and columna nasi like a proboscis. The operation on the upper lip was very successful, but the lower lip pouted and drooped very much. Mr. Rose then decided to remove a V-shaped portion from the middle of the lower lip, taking care to remove more mucous membrane than skin. The result of this was very satisfactory; the lips came well together, and articulation was quite intelligible. Mr. Oakley Coles mentions this method of shortening the pouting lower lip in his *Deformities of the Mouth*.

657. *King on a Case of Undescended Testis Simulating Intestinal Obstruction.*—Dr. King in the *Lancet*, Feb. 1883, p. 319, gives notes of a patient, aged 24, in great pain, but able to walk in a bent position; subsequently he was seized with severe paroxysms of pain and vomiting; the case proved very perplexing, until Mr. Taylor made a careful examination and found that there was only one testicle in the scrotum. Morphia was given, the patient kept on milk and iced soda water, and the bowels freely opened by a purge and then an enema. The vomiting gradually ceased, after one or two days the pain decreased and the patient was out of pain five days after admission. The case shows how the symptoms of hernia may be simulated by a case which is not a hernia. Erichsen, in his *Science and Art of Surgery* (7th ed., Vol. ii., p. 664) mentions a similar case, and Bryant in the *Med. Times and Gazette*, Vol. i., 1872, p. 454, relates a case where he operated with success where no hernia existed, although all the symptoms pointed to one, and were relieved after the operation of cutting down to the undescended testicle.

658. *Bruce on Foreign Bodies in the Air-Passages, with Especial Reference to Cases of 'Puff and Dart.'*—Dr. Bruce in the *Lancet*, Feb. 1883, pp. 271, 314, gives the notes of three cases where a foreign body was lodged in the air-passages from playing at the game of 'Puff and Dart.' In one case, a boy aged 11 happened to take a full inspiration while his mouth was applied to a tube through which he was about to blow a dart, and unfortunately he swallowed the latter. About a week afterwards tracheotomy was performed, and a search

made for the dart, but with no success; great constitutional disturbance followed, but the patient eventually recovered sufficiently to be sent into the country. About five months after the accident, another attempt to extract the foreign body was made, also without success; and the patient again suffered from severe constitutional disturbance, followed by marked prostration and pleurisy of the left side, so that puncture of the chest became necessary; a large quantity of very offensive fluid was drawn off, giving great relief at the time, but he never rallied, and died just seven months after the accident. At the *post mortem* examination, the needle was found firmly impacted in a secondary bronchus; whilst the left pleural cavity presented an empty granular cavity, and the lung itself was in a state of solid oedema, though not hepatised. The second case was in a man aged 28, and also proved fatal after ten days, from hæmorrhage from the lungs and pneumonia. No *post mortem* examination was allowed. In the third case, seven months after the accident, the patient had a violent fit of coughing, and brought up the thick end of the needle with some worsted still attached to the eye. About six hours afterwards he had a similar fit of coughing and brought up the point of the needle, about three-quarters of an inch long. The needle had rusted completely through the middle. Dr. Bruce concludes by making remarks on the cases, and also some observations on foreign bodies when they have passed into the mouth, whether they have been sucked into the air-passages or have passed into the stomach.

659. *Macdougall on Rupture of the Urinary Bladder.*—Dr. Macdougall, in the *Lancet*, Feb. 1883, p. 269, refers to an elaborate paper on Rupture of the Urinary Bladder, by Mr. Rivington, which appeared in the *Lancet*, Nov. 4, 1882, in which reference is made to the supposed cases of this injury published by Dr. Macdougall in the *Edinburgh Med. Jour.* for Jan. 1877. Mr. Rivington remarks that in neither of Dr. Macdougall's cases is there any satisfactory evidence of distension of the bladder at the time of accident, and some of the most characteristic primary symptoms of rupture were conspicuously absent. In reply to this statement, Dr. Macdougall gives an epitome of his two cases, and then makes some remarks in support of his original diagnosis.

660. *Whitson on Compound Fracture of Clavicle: Fragments sutured by Wire.*—Dr. Whitson, in the *Brit. Med. Jour.*, Jan. 1883, p. 13, in referring to the rarity of compound fractures of the clavicle, and also the danger of injury to the large vessels in the neighbourhood, relates a case which recently came under his care, in which there was no complication nor injury to the vessels. A lad, aged 15, was knocked down and run over by a reaping-machine. On examination at the hospital, a compound fracture of the right clavicle about its middle was discovered, accompanied by a lacerated wound about five inches in length, extending towards the axilla. There was also a compound fracture of the right humerus in its upper third. The fractured ends of the clavicle were stripped of periosteum for a short distance, and a sharp projection was removed by the bone-forceps; the wounds were syringed out with carbolic acid solution, and the edges of the wound sewn together with catgut sutures; drainage-tubes were freely inserted, and an antiseptic gauze dressing applied. After a week, it became evident

that something else must be done to keep the fractured ends of the clavicle together, and it was decided to suture the fragments; this was done by means of a tolerably stout wire passed through holes drilled in the ends of the bone, and, on being drawn tightly together, the fragments were brought into good position, so that in about three weeks there was osseous union, and the wires were removed. The patient made a rapid recovery. [A similar mode of treatment is reported in the *Med. Times and Gazette*, Feb. 1882, p. 183.—*Rep.*]

661. *Bellamy on Fatty Tumour between the Ribs.*—Mr. Bellamy, in the *Brit. Med. Jour.*, Jan. 1883, p. 13, mentions a case of a woman, aged 28, who consulted him for a tumour in her side. On examination he found an oval tumour, measuring two by one and a half inches, apparently attached to the lower border of the middle of the body of the sixth rib on the left side; the skin over it was freely movable. The tumour was removed, and proved to be of a fatty nature; it grew from between the layers of the intercostal muscle.

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662. *Stein on Disappearance of a Tumour under the Influence of Erysipelas.*—Dr. T. Stein, in the *Pratch*, 1882, No. 16, describes a striking instance of so-called 'erysipèle salutaire' (Championillon). A sickly peasant woman, aged 48, complained of a pain and tumour in her right breast, which had appeared about a year previously. The mammary gland was found irregularly enlarged, fixed to the chest-wall, hard, knobbed, at some points fluctuating; the skin was adherent, showing dilated veins. The age of the patient, the moderate rate of the growth of the neoplasm, the hardness and immobility of the tumour, and the cachexia pointed to a malignant disease (cancer or sarcoma). The author persuaded his patient to undergo operative treatment; and meanwhile, keeping in view her anæmic state, he made an injection ($\frac{1}{3}$ of a Pravaz's syringe) of pyrophosphate of iron with citrate of soda in the dorsal region. About twelve hours later, severe erysipelas of the neck and chest (and afterwards of the head) appeared, starting from the spot of the injection. The attack kept the patient in bed twelve days. On examination on the thirteenth day the author, to his utter astonishment, found no tumour; nothing but two indurated knots, each of the size of a small walnut, remained. At the same time a great improvement of her general health followed. Dr. Stein was able to find out in literature only very few similar cases. He gives the list as follows:—Mosengeil's, three cases (Langenbeck's *Archiv*, Vol. 12); Busch's, three (*Berlin Klin. Wochenschr.*, 1866 and 1868); Legrand's, one (Schmidt's *Jahrb.*, Vol. 63, p. 177); Hahn's (*Bonn Inaugural Diss.*, 1870); Lussana's (*Schm. Jahrb.*, Vol. 141); and Professor Zarubin's (Botkin's *Ejened. Klin. Gaz.*, 1881, No. 30). [For an instance of *erysipèle salutaire* see the LONDON MEDICAL RECORD, Nov. 1880, p. 763.]

663. *Dannenberg on the Healing of Wounds of the Spleen.*—Dr. A. Dannenberg (*St. Petersburg Inaug. Dissertation*, 1882) wounded, in various ways, the spleen in fourteen dogs, killed the animals in periods varying from 24 hours to 108 days, and examined numerous specimens (taken from twenty-eight wounds) microscopically. He sums up his results as follows. 1. Incisions into the spleen are prone to rapid union; some amount of gaping occurs only on the surface of the organ. 2. In-

cisions into the pulp are prone to heal without suppuration. 3. Suppuration of the splenic tissue, in the course of a wound, occurs only as a rare exception. 4. Adhesion of the splenic capsule to the omentum, which develops very rapidly, is one of the conditions leading to healing of wounds of the spleen. 5. Perforating wounds heal slowly, and always through development of granulation-tissue. 6. Punctured wounds heal by the first intention. 7. Amputation-wounds of the spleen heal by its adhesion to the omentum, resulting from the formation of connective-tissue between the parts. 8. In the formation of a scar, both the proliferating elements of the splenic pulp and the epithelioid elements of the reticulum take part. 9. Hypertrophy of the subserous layer of the capsule depends on the proliferation of cells of connective-tissue. 10. There is proceeding an extremely active proliferation of capsular epithelioid tissue around the edges of a wound. 11. There is proceeding a complete regeneration of the epithelioid covering on the surface of a cicatrix left by a wound. 12. Under certain conditions, common epithelioid cells may undergo transformation into cylindrical and cuboid epithelioid elements. [One of the author's fine drawings (fig. 5) really shows as clearly as possible this curious transformation, with all its gradual stages. Still, histologists would probably linger before sharing the author's doubts about existence of any strongly marked limits between epithelioid tissue and true epithelium.—*Rep.*]

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664. *Meusel on Two Cases of Intestinal Fistula healed by Abdominal Incision and Suture of Intestine.* E. Meusel, of Gotha, communicates to the *Deutsche Wochenschr.*, Feb. 14, two cases of fistula cured by abdominal incision and suture of the intestine. 1. Frau E. O. was operated on by the author on May 28, 1881, for obstruction of the bowels, with urgent symptoms. The abdomen was opened along the linea alba, between the symphysis and the umbilicus; a much distended coil of small intestine was seized and opened by a longitudinal incision, and its edges sutured to the edges of the wound in the parietal peritoneum. In four days solid feces passed by the anus, only fluid passing through the fistula; and in eight days the stitches were removed, but neither caustics nor cauterisation with the galvanic cautery succeeded in closing the fistula. In the spring of 1882, an operation for this purpose was determined on. An abdominal incision was made above the fistula, sufficient to admit two fingers; the intestine was separated from its parietal attachment, and the edges of the fistula were pared, and united by five catgut sutures. The intestine was then returned into the abdomen, and the abdominal wound closed. Convalescence proceeded without rise of temperature, and was complete in ten days, although a carefully regulated diet was adhered to for several weeks. 2. In August 1882, a restaurant-keeper presented himself, suffering from a strangulated inguinal hernia, which resisted all attempts at taxis. When the sac was cut down upon and opened, it was found distended with 28 centimètres length of intestine, closely adherent to the sac, dark blue in colour, and exuding a sanguineous fluid from a small three-cornered opening in one lustreless part of the intestinal wall. The intestine was emptied, washed out with a warm sublimate solution, and the small opening fixed in the hernial aperture by three stitches. After fourteen days, feces passed by the

anus, but the fistula refused to heal spontaneously, in spite of its small size, and cauterisation only made matters worse. In Nov. 1882 the abdomen was opened, the intestine dissected from the edges of the fistula, with difficulty, owing to the thickening of the peritoneum, and the now extensive opening in the bowel united by six catgut sutures, after which the abdominal incision was closed. In ten days it had healed, and on the fourteenth the patient returned to his occupation. In connection with the first case, the author remarks that he would not again select the linea alba as the site of operation in a similar case, since it does not assist in favouring the conditions of closure of the fistula.

665. *Heimann on the Treatment of Artificial Anus.*—Dr. Heimann, of Dornhan, gives (*Deutsche Med. Wochenschr.*, Feb. 16) statistics of eighty-four cases of artificial anus treated by Dupuytren's method, from which one fatal case must be excluded, as having been subsequently treated by resection of the bowel, death resulting in consequence of the binding down and occlusion of the canal by a false ligament. Of the remaining eighty-three cases seven died, giving a mortality of about 1 in 12, or 8·5 per cent. But of these seven cases, three, noted by Dupuytren, died in consequence of 'indigestion'; one patient, 78 years of age, operated on by Hamburgin, died from marasmus, after a successful operation; and the cause of death in a case of Velpeau's was the employment of the scissors too soon (twenty days) after the formation of the artificial anus. This leaves only four deaths to be attributed to the operation itself, giving a proportion of 1 to 2 on the total mortality. In seventy-six of the eighty-three cases the result was more or less favourable. In fifty (60·2 per cent.) the artificial anus completely healed up; in twenty-six (31·3 per cent.) a small fistula was left, which could, however, be so well closed by a compress that the patients could resume their occupations, which were in some cases very arduous. The author recommends Dupuytren's clamp as a means by which patients can be cured, or at least relieved, without danger to life, but he points out the necessity of making a thorough examination and demonstrating the existence of a spur (Sporn) before having recourse to it, and of screwing it up gradually, so that only a small portion of the spur may be included each time, and, finally, the danger of employing it too soon after the establishment of the artificial anus. Perforation, which has been cited as a likely cause of death, occurred only in two cases, in operations by Dupuytren and Gherini; and peritonitis, extending from the portion of peritoneum included in the clamp, mentioned by Dieffenbach as a possible fatality, was the cause of death in only one of the eighty-three cases. The only remaining objection to the operation is its slowness, the time required for cure being from three to six months; but this ought not to come into consideration in comparison with a decidedly more dangerous procedure.

666. *Schüller on the Origin of Inflammations of Joints.*—In a lecture delivered on January 27, 1883, Professor Schüller, of Berlin (*Deutsche Med. Wochenschrift*, Feb. 21, p. 83), after giving a sketch of the various causes which were formerly supposed to cause inflammation in the joints, such as a poison in the synovia, or a particular diathesis, goes on to say that at the present day we do not think of inflammation except in connection with some special inflammatory excitant. Such exciting material may be

chemical or organic, and may enter the joint in one of three ways: 1, through an external wound into the joint; 2, by the blood; 3, by spreading from the neighbouring tissues. With respect to open wounds of joints, antiseptic surgery has taught us that they are not inevitably followed by purulent inflammation, as was formerly supposed, but only when some of the exciting causes of inflammation can enter the wound and develop in the joint. Inflammation in closed joints cannot be caused by contusion, unless there be an exciting cause of inflammation in the blood itself, or in some part of the body where it can pass easily into the circulation, and so reach the joint by means of the extravasation. Such a cause must be always present when inflammation of a joint results from a simple injury. Metastatic inflammation can take place in the joints without injury of any kind, as in acute rheumatism, pyæmia, &c.; and the exciting material may be micro-organisms, as in pyæmia, or a chemical substance, as in gout. The anatomical arrangement of the tissues of the joint probably predisposes to the deposition there. Lastly, inflammation may result when the excitants enter the joints from the neighbouring tissues, which they may do suddenly, as in some forms of acute osteomyelitis, gradually invade the articular tissue from point to point, as in syphilitic and tuberculous inflammations, or enter through the lymphatics, as in phlegmonous infiltration and some forms of acute infectious osteomyelitis. Dr. Schüller points out at the close of his lecture how many of the old ideas on inflammation of the joints are again coming to the front, how great is the advance which we have made in the knowledge of the subject, but how much still remains to be done before we have a clear insight into the processes and causes of the inflammation.

ALICE KER, M.D.

667. *Cabot on Nephrotomy for Hydronephrosis.*—Dr. A. J. Cabot describes the following case in the *Boston Med. and Surg. Jour.* for Feb. 22. A child, aged 10, fell down stairs last spring, and for three days passed bloody urine. A few weeks later he noticed a swelling on the right side of the abdomen: this increased in size, and three months after the fall he was admitted into hospital, appearing sallow, dull, and listless. The tumour was prominent and fluctuating, filling the right side of the abdomen and reaching to the median line. Dulness on percussion extended from the region of the liver to within one inch of the anterior superior spine of the ilium. By means of the aspirator, forty-four ounces of clear yellowish fluid were withdrawn. Its specific gravity was 1007, its reaction alkaline; it contained no sugar, and only one-fourth per cent. of albumen. The sediment contained large round cells, some undergoing vacuolation, and also blood-corpuscles in varying stages of destruction. Nine days later aspiration was repeated, and urea was found in the fluid. A week after the second tapping, Dr. Cabot made an incision vertically upwards from the crest of the ilium along the outer edge of the quadratus lumborum. Upon cutting down carefully through the muscles, the cyst wall came into view, and was incised and stitched to the skin. On passing the finger into the cavity a soft nodular mass was felt, probably the kidney in the posterior part of the cyst. The ureter could not be detected. Over two pints of an amber-coloured fluid escaped. A double drainage-tube was inserted, and Listerian dressings applied, the operation having been performed under carbolic spray. On the second day the urine became smoky, and the watery

fluid that escaped from the wound made a bluish-black stain on the dressings, the urine staining the sheets in the same manner. The spray was no longer used during the dressings, which henceforth were continued daily for about a week, then every other day. The temperature soon fell to normal, but on the twenty-second day it rose to 104° through an error of diet; next day it fell rapidly. The discharge, 'which was mainly watery, with very little purulent character,' steadily diminished in amount. Five and a half weeks after the operation, the tube was removed, and the wound quickly closed. When last heard of, seven months after the operation, the patient was in excellent health. ALBAN DORAN.

668. *Nancrede on a Subcutaneous Tubercular Tumour.*—Dr. Nancrede (*Boston Med. and Surg. Jour.*, April 5, 1883) relates that he removed a small painful nodulated tumour from the outer side of the right rectus abdominis of a girl aged 18. The tumour was connected with the anterior cutaneous branches of the lumbar nerves. It was about an inch in diameter, and microscopically was composed of fibrous and adenoid tissue with giant-cells. The girl had signs of consolidation at the apex of one lung, with cough and occasional hæmoptysis. Dr. Nancrede believes the case to be unique.

ROBERT SAUNDY, M.D.

669. *Labbé on the Treatment of Furuncle.*—M. Labbé made a communication to the Société de Thérapeutique on February 14 last, in which, referring to the observations of Loewenberg, Lannelongue, and himself, as to the inoculability of furuncle, and to Pasteur's discovery of a special micro-organism in that disorder, he recommends the discarding of poultices, &c., which, by softening the neighbouring skin, favour self-inoculation. He substitutes, for the measures generally employed, isolating materials, as collodion, starch powder, &c., cauterisations of silver nitrate, or strong carbolic acid, &c.

K. W. MILLICAN.

670. *Penot on Diffuse Phlegmon of the Thorax.*—Dr. Penot, of Paris, in a thesis on this subject (*Révue de Thérap.*) says that there is a variety of diffused phlegmon (phlegmonous erysipelas) which, without any apparent reason, appears on the lateral surface of the thorax. It is generally observed among patients with weakened constitutions. The pathological character of this phlegmon is not special. Sometimes it is decidedly subcutaneous, at others it affects the intramuscular and intermuscular connective tissue, and even destroys the muscular tissue. The lymphatic glands are never affected by it. The first symptoms are those of adynamia, and in the first period of the affection are always much more marked than those of local inflammation. In the second period, the local and general conditions are both equally serious. Nevertheless, death is almost always due to the general condition, which progressively grows worse. At the onset, the diagnosis is difficult. The predominance of general symptoms is often a cause of error, if the place where the patient complains of pain be not ascertained. Inspection and palpation render the diagnosis easy. The prognosis is serious on account of the patient's bad general condition, and the possibility of complications, such as erysipelas, pyæmia, spreading pleuro-pneumonia, &c.

671. *Varick on Amputation at the Hip-Joint by Trendelenburg's Method.*—Dr. T. R. Varick (*American Jour. of Med. Sciences*) records a case in which this method was successfully employed. He had a

rod made, which is described as 'a steel rod 38 centimètres long, 6 millimètres broad, biconvex on section, and 2 millimètres thick at the centre, with blunt edges, but provided with a movable lance-shaped point 5 centimètres long.' The operation, as performed by Trendelenburg, is to pass the rod obliquely through the soft parts in front of the joint in the same way as the two-edged knife in the well-known method of Lisfranc, only 2 centimètres higher. The rod enters, therefore, about 4 centimètres below the anterior superior spinous process of the ilium, passes between the femur and the femoral artery, and emerges at the fold of the scrotum. The point is now removed, and an elastic tube or band firmly wound in figure-of-eight fashion round the ends of the rod and passing in front of the thigh. In this way the great vessels of the thigh and all the soft parts in front of the joint are compressed. Lisfranc's knife is then introduced 1 to 2 centimètres below the rod, and by cutting from within outwards in the usual way the anterior flap is formed. Having tied the vessels and removed the compressing band and rod, Trendelenburg next disarticulates the joint, and then forms the posterior flap in a similar manner. Dr. Varick modified the operation by applying the same method to the posterior flap when he had secured all the vessels in the anterior flap. The posterior flap was formed by cutting from without inwards, the incision commencing about half an inch below the point of egress and carried through the integuments and muscular tissue to the bone, and terminating as near as possible at the point of entrance of the rod. The capsular ligament was opened posteriorly, and the limb being carried across the abdomen the joint was readily disarticulated. Two or three small arterial branches were tied, after which the compression was removed. Except from the unloading of the enlarged veins on the distal side of the site of operation, there were not two ounces of blood lost. Dr. Varick thinks that if, instead of bringing the point of the rod out at the fold of the scrotum, it were directed more posteriorly, or nearer the tuber ischii, the risk of missing any of the larger arterial branches would be avoided.

672. *Roberts on the Uselessness of Styptics.*—In a paper read before the Philadelphia County Medical Society, Dr. J. B. Roberts (*Phil. Med. Times*, Jan. 27, 1883) thus states his objections to the use of styptics in general surgical practice. 1. Their reputation as hæmostatic agents leads practitioners to resort to them when more trustworthy methods are needed. Thus valuable time is lost; for, after temporary arrest, hæmorrhage recurs in the already anæmic patient, and is perhaps followed by disastrous results. 2. If they fail to control the bleeding—which they generally do when the hæmorrhage is important—it is often so difficult to rid the surface of the pasty clots, that subsequent ligation of the vessels is well-nigh impracticable. 3. Many styptics prevent union by first intention, because they irritate the raw surface, lead to inflammation, or induce suppuration. He says, further, that Monsel's salt—the subsulphate of iron—has probably more reputation than any other styptic, yet it is the most objectionable of all. It covers the wound with black sticky clots, which obscure further examination of the surface, prevent primary union, and may even allow bleeding to occur beneath them. There are but two scientific and satisfactory ways of arresting hæmorrhage as usually observed in the practice of general surgery. The first is

occlusion of each individual vessel by ligature, torsion, or acupressure, and is generally not required for arteries smaller than the facial, nor for veins, except those of the largest calibre. The second method is direct pressure by compresses and bandages, which, if properly applied, will always be effectual when the first method is not demanded. It is to be adopted when there is oozing from small arteries and capillaries. In all cases of traumatic hæmorrhage, it should be recollected that a man can lose many fluid ounces of blood without serious injury, and also that no artery or vein can bleed if it be compressed by the fingers. These facts assure the surgeon that there are always time and means to control the bleeding, at least temporarily. Many arteries that spurt freely when first divided, soon spontaneously stop bleeding. Therefore it is foolish to interrupt the steps of an operation by tying every little vessel that throws out a jet of blood. Let the surgeon proceed, even if the arteries be quite large; and when he has finished his incisions he will find, to his surprise, very few points requiring ligature. He should tie these, and, after washing away the loose clots, make moderate and equable pressure. There will then be no part for styptics to play. It is possible, perhaps, that there may be occasional instances of oozing where pressure cannot be effectually applied; but these are certainly so rare, that they do not materially affect the truth of the proposition that styptics are useless.

673. *Jordan on Ventral Hernia*.—Dr. Jordan reports (*Birmingham Med. Review*, Feb. 1883) a somewhat remarkable case of true strangulated ventral hernia. The patient was a lady, of previously good health, who, when first seen by Dr. Jordan, had had symptoms of intestinal obstruction for forty-eight hours. All the ordinary sites of hernia were in a natural state. Nothing like hernia was anywhere visible or to be felt, but, when the abdominal surface was examined, the lady complained of a tender spot between the umbilicus and the groin—well removed from the inguinal canal. On closer examination a certain fulness was found, not visible to the eye, but clearly different from the corresponding spot on the other side of the middle line. It was decided to operate, and there was found a very flat hernial sac containing eight inches of bowel, the neck of the sac apparently passing through the lower part of the linea semilunaris below and to the right of the navel. The lady made a favourable recovery. The dressing at first was a soft new sponge, kept constantly moist with a solution of carbolic acid in water and glycerine.

MEDICINE.

RECENT PAPERS.

674. WESTPHAL.—Two Cases of 'Thomsen's Disease.' (*Berliner Klin. Wochensh.*, March 12.)
675. FOSTER and SAUNDY.—Diabetic Coma. (*Birmingham Med. Record*, Jan. 1883.)
676. CHARCOT.—Hysterical Contraction, (*Le Progrès Méd.*, 1883, Nos. 1, 3, and 5.)
677. MACKENZIE.—Filarial Hæmato-chyluria. (*Trans. of Pathol. Soc. of London*, 1882.)
678. ARMANGUÉ.—Tænia as a Cause of Aphasia. (*Journal de Méd. et de Chir. Prat.*)
679. STICKLER.—Equine Scarlatinal Virus as a Prophylactic against Human Scarlatina. (*New York Med. Record*, March 24.)

680. BOAS.—Paroxysmal Hæmoglobinuria. (*Deutsches Archiv für Klin. Med.*, Nos. 3 and 4, 1882.)
681. CHARCOT.—The Causation of Diabetes. (*Journal de Méd.*, April 1883.)
682. OSGOOD.—Non-organic Murmurs in the Pulmonary Area. (*Boston Med. and Surg. Jour.*, March 29.)
683. NEALE.—Some Points in the Etiology of Scurvy. (*Brit. Med. Jour.*, March, p. 410.)
684. WHITE.—Case of Scurvy with Dilatation of the Heart and Retinal Hæmorrhage. (*Brit. Med. Jour.*, March, p. 410.)
685. FINLAYSON.—Pulse-Breath and Pulsatile Breathing. (*Brit. Med. Jour.*, March, p. 403.)
686. FRASER.—The Relative Liability to Enteric Fever at Different Ages. (*Brit. Med. Jour.*, March, p. 404.)
687. BRISTOWE.—The Functional Vomiting of Hysteria. (*Practitioner*, March 1883.)
688. GEE.—Typhoid Fever with Parotid Bubo: Recovery. (*Med. Times and Gazette*, Feb., p. 180.)
689. HARDY.—Bleeding Coup-sur-coup in Pneumonia. (*Med. Times and Gazette*, March, p. 277.)
690. MCCULLOCH.—Persistent Hiccough. (*Lancet*, March, p. 437.)
691. MANSON.—Endemic Hæmoptysis. (*Ibid.*, March, p. 532.)
692. GLOVER.—The Curability of Cerebral Aneurism. (*Lancet*, March, p. 539.)
693. MAHOMED.—Albuminuria and Bright's Disease. (*Ibid.*, March, p. 593.)
694. NEALE.—The Feeding of Infants. (*Brit. Med. Jour.*, March 1883, p. 594.)
695. SANCTUARY.—Cases of Dilated Stomach. (*Brit. Med. Jour.*, March, p. 612; and April, p. 658.)
696. RODIONOFF, G.—On the Contagiousness of Phthisis. (*Pract.*, 1883, No. 1, pp. 10-11.)
697. VASILEVSKY.—On Complication of Relapsing with Intermittent Fever. (*Medic. Obscr.*, 1882, July, p. 115.)
698. GOEDICKE.—Percussion of the Colon as a Means of Diagnosis in Diarrhœa. (*Deutsche Med. Wochensh.*, Feb. 14.)
699. WEISS.—Pseudo-hypertrophy of the Muscles. (*Wiener Med. Blätter*, No. 7, 1883.)
700. COLLIE.—The Etiology of Enteric Fever. (*Report of the Homerton Hospital*, 1881.)
701. SIRTORI, C.—Study and Observations on Diphtheria with Special Regard to the Action of Pilocarpine. (*Gazz. Med. Ital. Lomb.*, March 3, 10, 17, 24.)
702. MARAGLIANO.—Pulmonary Cavity; Intrathoracic Injection: Cure. (*Gazz. Med. Ital. Prov. Venete*, March 10, 1883.)
703. PEDRINI.—Swallowing of Shot and Insufflation in the Treatment of Ileus. (*Gazz. Med. Ital. Lomb.*, Feb. 10, 1883.)
704. BÉCLARD.—The Contagion of Measles. (*Gaz. Méd. de Paris*, Feb. 17.)

ART. 674. *Westphal on Two Cases of 'Thomsen's Disease'*.—Dr. Westphal describes (*Berliner Klin. Wochensh.*, March 12) two cases of an affection which, he observes, has escaped attention, but which has not only a pathological and physiological, but also a practical interest. Dr. Westphal has given its name for two reasons; first, that Dr. Thomsen, District Medical Officer (Kreisphysikus) of Kappeln, in Schleswig, was the first to describe this malady; and, secondly, because numerous members of his own family have suffered therefrom. Although, in Leyden's work on diseases of the spinal cord, 'spastic symptoms' were noted in one case, yet to Dr. Thomsen belongs the merit of having pointed out and shown the relations of this special and independent form of disease. Since the publication of Dr. Thomsen's observations (*Arch. für Psych.*

und Nervenkrank, 1876) six cases of this disorder have come to the knowledge of Dr. Westphal from Messrs. Bernhardt, Seeligmüller, Strümpell, Erb, Peters, and one Italian case from Dr. Petrone; these, added to the two now related, make altogether eight cases. None, the author adds, have been reported from England or France. As the symptoms are alike, a short general sketch of these will serve for a description of all the cases. The pathognomonic symptom is that, under certain circumstances, all active movements are impeded by tonic contraction of the muscles. The symptoms are grouped as follows by Dr. Westphal. 1. Continued immobility of muscles after sitting or standing. If the patient have been seated a long time, on attempting to rise he can only with difficulty bend his joints, through the rigidity of his muscles. 2. Contraction after more violent muscular efforts, or after a single powerful effort; e.g. supposing a sudden flexion of the forearm, the biceps and lupinator longus remain so firmly contracted that the tonic cramp can only be overcome by force. 3. Inconvenient contraction under certain complicated movements; e.g. the stiffness will come on while attempting to put on a great coat, in playing musical instruments, turning, writing, and in dancing. Children will be seized in the midst of their playing, suddenly brought to a standstill. 4. The tonic cramp will come on so suddenly and unexpectedly, that the somatic and psychological phenomena can scarcely be separated. One patient, if he ran quickly and caught his foot against a stone, would fall flat on his face with extended arms and rigidity of his whole muscular system. 5. Dr. Thomsen states that, for himself, the sudden thought of the affection, or mere imagination, will bring it on. Cold, or long exposure to cold air, will, in such patients, suffice to induce the attack. Continuous and monotonous passive movements favour the subsidence of the cramp, and restore the limbs to their normal condition. The muscles of the trunk and extremities are chiefly obnoxious to this form of spasm, whilst the sphincters are unaffected. Muscles supplied by the cerebral nerves are subject to the same affection, but in a slighter degree. In talking there is often a sense of stiffness of the tongue, and in eating there is frequently experienced a sense of stiffness of the masticator. One patient observed that, when he opened his mouth to begin to eat, he would find it difficult to shut it again. The closing and reopening of the eyelids could only be tardily effected. The muscles supplied by spinal nerves have shown an increase in their bulk; they are in some cases inordinately strong, but in the majority there is not a corresponding increase of power. The mechanical and electrical excitability of the muscles is augmented. In two cases, microscopical examination of a small portion of a muscle showed a perfectly normal and healthy structure, but the nerve-endings were not traced. The tendon phenomena were normal; sensibility was intact. The reflex movements from cutaneous surfaces were generally unimpaired, but on tickling the palm of the hand it would close, then the arm would bend in the natural way, and the same movements would follow in the other limb. The point of highest interest in this affection is its etiology. It is distinctly hereditary, through four generations of Dr. Thomsen's family in which psychoses had, moreover, been notable. Dr. Thomsen is disposed to class it among the neuroses. Dr. Westphal regards it as a peculiar congenital anomaly of 'muscle-tonus,' asso-

ciated with abnormal volume of the muscles. The practical point of this affection in the present instance is that it disqualifies for military service, at the same time that it lays the subject thereof open to the imputation of malingering.—[The explanation of the phenomena offered by Westphal, it is respectfully submitted, does not appear to meet the conditions of this affection. It would seem to be more in accordance with the physiology of muscular action to look for its cause in the inhibition of the sympathetic or vaso-motor influence upon the vessels of the muscles, arresting the removal of the chemical products of muscular action, and thus interfering with nutrition and movements. In short, the muscles may be said to be approaching to the state of *post mortem* rigidity, wherein myosin becomes developed. *Rep.*]

W. B. KESTIVEN, M.D.

675. *Foster and Saundby on Diabetic Coma.*—Drs. Foster and Saundby (*Birmingham Med. Record*, Jan. 1883) report another case of rapid death from diabetic coma, in which the onset of the coma was indicated by the intense burgundy-red colour of the urine on adding ferric chloride. There were no fat emboli. The authors came to the following conclusions. 1. Diabetic coma is especially liable to supervene in acute cases in young persons. 2. Diabetic patients and their friends should be warned of the danger of constipation, muscular exertion, nervous excitement, and cold, as probably predisposing causes of death by coma. 3. The discovery of the ferric chloride reaction in the urine should be taken as a warning to look out for the premonitory symptoms of coma. 4. Deep respiration, rapid pulse, and abdominal pain are the earliest premonitory signs of this condition. 5. Cyanosis may be absent in spite of the dyspnoea, and may appear only just before death. 6. Convulsive seizures are not an uncommon occurrence just before death. 7. Diabetic coma, with all its classical symptoms, occurs independently of any excess of fat in the blood, and the pathological value of lipæmia, when present, is yet undetermined. 8. The toxicæmic theory, or poisoning by acetone, or some nearly allied substance or substances, affords the best explanation of this remarkable group of symptoms.

676. *Charcot on Hysterical Contraction.*—M. Charcot (*Le Progrès Méd.*, 1883, Nos. 1, 3, and 5) gave a clinical lecture on two cases of contraction occurring in hysterical patients, apart from convulsive seizures, and in consequence of slight injuries. One case was in a female, the other in a male. In the female, the contraction was accompanied by hemi-anæsthesia, and sensorial hemi-anæsthesia, diminution of the field of vision, of colour-vision, of perception of light, of visual acuity, of taste, smell, and hearing. A year ago the patient, in breaking a pane of glass, caused a small wound on the back of her hand. This caused the contraction, which came on suddenly, without any pain, and persisted. The wound healed in four or five days. M. Charcot pointed out that this contraction could be distinguished from a voluntary effort by the tracing of the pneumograph. If the thumb, which was firmly applied to the index finger, were attached by a bandage to a string passing over a pulley and loaded with a weight of one kilogramme, after half an hour the thumb was raised; but, on removing the weight, the former position was resumed instantly without any appearance of fatigue, while the pneumographic tracing was quite regular. On the other hand, one of the externes was submitted to a similar experiment, with a like

result as to the separation of the thumb and index finger in the same time. The other case was that of a blacksmith, who got his arm burnt by a bar of hot iron falling on it. Two months later contracture came, and was accompanied by hemi-analgesia, affecting general and special sensibility, with reduction of the field of vision, but no colour-blindness. The application of a magnet restored the sensibility, but the contracture remained.

677. *Mackenzie on Filarial Hemato-chyluria.*—Dr. S. Mackenzie (*Trans. of Path. Soc.*, 1882) records the case of a soldier, a native of Madras, but born of European parents, who, after arriving in this country, found that his urine became increased in quantity, turbid, slimy, and by degrees quite milky. A little later he was seized with a sudden violent pain, extending from the left loin to the left testicle, and was admitted into the military hospital, and thence transferred to Dr. Mackenzie's care. The urine averaged 120 ounces in daily quantity, its specific gravity was about 1010, neutral or faintly alkaline, and contained always some albumen, but no sugar. The urea averaged .6 per cent. Ether readily removed the milky colour. It deposited blood, triple phosphates, rarely oxalates, bacteria, and embryo filarise sanguinis hominis. The blood at night contained numerous filarise, the maximum being reached at midnight, but they were absent during the day. By inverting the order of his life, so that he slept by day and was up at night, this condition of things altered too, and the maximum of filarise in the blood was then at noon. After being under observation some time, patient got a chill, had a rigor, followed by signs of pneumonia at the left apex. This was followed by abscesses at the root of the neck and left shoulder-joint, which were opened. From the date of this illness the urine ceased to be milky, and the filarise disappeared from the blood. The patient ultimately died, with empyema of right side of chest. The kidneys were slightly enlarged, and in early stage of suppurative nephritis. The mucous membrane of the bladder was thickened, covered with mucus, and contained extravasations. The abdominal lymphatics were carefully dissected, and found to be greatly dilated. The thoracic duct was dilated below and obliterated above. The lymphatics of the left kidney were especially dilated, and contained calculi. No trace of the parent worm could be discovered. No communication could be traced between the dilated lymphatics and the urinary passages.

678. *Armangué on Tania as a cause of Aphasia.*—Dr. Armangué relates (*Jour. de Méd. et de Chir. Prat.*) the case of a woman of sixty who was seized with vertigo, and a few days later lost the memory of words for some days. After the expulsion of a tape-worm there was no return of her nervous troubles. He quotes a case of aphasia in a child cured by the expulsion of numerous tricocephali, published by Daniel Gibson; and a case of aphasia coinciding with tania published by Siedel. The editor adds a case of reflex hemiplegia and hemi-anesthesia, with convulsive seizures, in a little girl of twelve, cured by expelling a tania, observed by Langer in Germany.

679. *Stickler on Equine Scarletinal Virus as a Prophylactic against Human Scarletina.*—Dr. J. W. Stickler (*New York Med. Record*, March 24, 1883) recommends inoculation with equine scarlatinal virus as a preservative against scarlatina, and gives twelve cases in which he has performed the operation with no bad results, and apparent protection

from the infection of human scarlatina at least, by injecting scarlatinal blood. The 'virus' was the nasal mucus of the affected animals.

680. *Boas on Paroxysmal Hemoglobinuria.*—Boas (*Deutsches Archiv für Klinische Med.*, Vol. xxi., Nos. 3 and 4, 1882) regards paroxysmal hemoglobinuria as always due to a chill, and proportional in intensity to the amount and duration of the chill. The disorganisation of the blood-corpuscles takes place in the parts exposed to cold, and precedes the general symptoms.

681. *Charcot on the Causation of Diabetes.*—M. Charcot, in a recent clinical lecture (*Jour. de Méd.*, April 1883) says that too rich a diet, especially in starchy matter, may cause diabetes, which explains the frequency of this disease in Italy, where these substances play an important part in alimentation; also a great and sudden alteration in diet, glycosuria being common among the novices of La Trappe. Finally, the abuse of wine plays a part in this etiology; in Munich, where beer is drunk chiefly, diabetes is rare, but in the Rhine countries it is frequent. Alcohol is a doubtful cause. In a family of seven persons, the only one who was not a diabetic was an alcoholic.

682. *Osgood on Non-organic Murmurs in the Pulmonary Area.*—Dr. Hamilton Osgood (*Boston Med. and Surg. Jour.*, March 29, 1883) relates a case of a murmur in the pulmonary area which disappeared when the man took a forced inspiration and held his breath. He attributes the murmur to accidental pericardiac friction.

ROBERT SAUNDY, M.D.

683. *Neale on Some Points in the Etiology of Scurvy.*—Mr. W. H. Neale, M.B. (*Brit. Med. Jour.*, March 1883, p. 410), in a paper read before the Royal Medical and Chirurgical Society on Feb. 27, discusses some of the points in reference to the etiology of scurvy, as suggested by his experiences in the *Eira* Expedition to Franz Josef Land, in company with Mr. Leigh-Smith. Twenty-five men passed a winter in the Arctic regions, living on bear and walrus meat with vegetables (saved from the ship), under circumstances of unusual privation, all reaching England in health and safety, without having had the slightest symptom of scurvy present among them. Comparing the *Eira* Expedition with that lately commanded by Sir G. Nares, as to differences of diet, mode of living, exercise, fatigue, &c., the author ends his paper by making the following suggestions for the conduct of future Arctic expeditions. 1. The crews should spend the winter in huts rather than on board-ship. 2. The albuminoid food should be abundant, and consist as much as possible of the flesh of recently killed animals. 3. The meat should be cooked in the form of stews or hashes, to which the blood of the animal should be added. 4. Preserved vegetables should be mixed with every meal to aid the digestion of the meat, but not because they possess in themselves any special exclusive antiscorbutic properties. 5. Lime-juice may be dispensed with, if fresh meat can be obtained. In the discussion which followed, Dr. Colan, Dr. Donnett, Dr. Rae, and Sir Wm. Smart spoke of their experiences of scurvy in the Navy, and especially in the Arctic regions; and all maintained that in fresh meat and blood during Arctic winters there was something which prevented scurvy. Professor De Chaumont and Sir J. Fayer gave their experiences as to scurvy in the Army, and Dr. Barnes, Dr. Buzzard, and Dr. Reginald Thompson,

also spoke on the subject. In conclusion, Mr. Neale drew attention to the fact that, in eating the meat of the country in the Arctic regions, one is eating flesh and blood which have become frozen immediately after the death of the animal, and before any chemical changes had taken place, which in warmer climates are known to occur in twelve to twenty-four hours after death, and by which the chemical structure of the meat and blood become totally changed. At page 428, an article on the proceedings of the meeting is given, and attention is especially drawn to the last suggestion. In the *Lancet*, March 1883, p. 363, there is also a notice of the meeting, and a leading article on the debate at p. 372.

684. *White on a Case of Scurvy with Dilatation of the Heart and Retinal Hemorrhages.*—Dr. Hale White (*Brit. Med. Jour.*, March 1883, p. 416) at a meeting of the Royal Medical and Chirurgical Society, Feb. 27, read the notes of a case of scurvy admitted to the Dreadnought Hospital, in which retinal hemorrhages were detected, and the heart was much dilated. The patient was treated with lime-juice and full diet, and improved steadily, the retinal hemorrhages became less distinct, and the percentage of red corpuscles and hæmoglobin increased. It was shown that this was the only recorded example of dilatation of the heart with retinal hemorrhages, occurring in a patient affected with scurvy. [In the *Medical Digest*, Sect. 57:5, reference is made to cases reported by Dr. Hyde Salter in 1868 and 1870, showing the connection between scurvy and heart-disease.—*Rep.*]

685. *Finlayson on Pulse-Breath and Pulsatile Breathing.*—Dr. Finlayson, in the *Brit. Med. Jour.*, March 1883, p. 403, publishes a case in which a girl presented this curious phenomenon. The pulsations of the heart could be heard proceeding from her mouth; and they were audible in this way not only when she breathed, but also when she held her breath. At the *post mortem* examination it was found that there was pyopneumothorax of the left side, with a considerable intrapleural cavity in the left apex. No actual communication could be found between the cavity in the lung and the pleural cavity; but at one part there was a deep pit in close proximity to the pleural cavity. The heart was separated from the pleural cavity only by the pericardium and a coating of lymph on the pleural side, so that each pulsation of the heart must have been communicated to the air or fluid in the pleural sac. This curious pulse-breath or pulsatile respiration, proceeding in jerks from the mouth, has been carefully recorded by Dr. Thorburn, of Manchester, in the *Brit. Med. Jour.*, June 18, 1859, Sept. 20, 1862, and by Dr. Radclyffe Hall in the *Med.-Chir. Trans.*, Vol. xxvii., 1862.

686. *Fraser on the Relative Liability to Enteric Fever at Different Ages.*—Dr. Manson Fraser, in the *Brit. Med. Jour.*, March 1883, p. 404, has constructed a table and a graphic curve representing the liability to attack from enteric fever at different ages under 50. The diagrams constructed from the reports of the fever hospitals show only the percentages which occur at certain ages, and they ignore the fact that the numbers of persons living at these ages differ considerably; thus failing to show accurately the comparative liability to the fever at different periods of life. Dr. Fraser has taken those points into consideration, and the curve he obtains shows a

sudden ascent to 14 years, rather less sudden to 19 years, then a rapid fall to 30 years, descending gradually almost to unity at 50 years.

687. *Bristowe on the Functional Vomiting of Hysteria.*—Dr. Bristowe, in the *Practitioner*, March 1883, contributes some clinical remarks on the functional vomiting of hysteria. He commences by saying that 'fortunately patients seldom die of it, and, even though all kinds of treatment may seem to fail, more or less perfect recovery usually ensues in the long run.' Some interesting cases are noted, but one is especially instructive. A girl, aged 14, was admitted into St. Thomas's Hospital, suffering from a hysterical affection of the hip, which had showed itself some two years previously. During three months she gradually improved under treatment, but, after leaving, returned in a short time in an emaciated condition, almost immediately vomiting up everything she took. Various modes of administering food were tried, but without success, and at last she was fed solely by enemata. Dr. Bristowe then made a more careful examination, and gave up his first opinion, viz., that the patient was suffering from extreme irritability of the stomach, which caused the vomiting. On calling to mind the fact that she never complained of actual pain or tenderness in the region of the stomach; that she was not flatusulent; that her vomiting was an easy process with her; and especially that she brought back the greater part of the minutest quantities of food taken, and in the same form as when taken; it was decided that the bulk of her food never entered the stomach at all, but was retained in the œsophagus, and thence regurgitated. Acting on this opinion, Dr. Bristowe requested the resident assistant-surgeon to pass a medium-sized India-rubber tube along the œsophagus into the stomach, and then injected about three ounces of milk. The instrument met with a slight impediment at the lower part of the tube, but this was readily overcome. The milk thus injected produced no feeling of sickness, and remained in the stomach without causing discomfort. The next day the patient took milk in small quantities without being sick more than once or twice, and she soon was able to keep down a fair quantity of milk, eggs, bread, butter, &c. Gradually she gained flesh, but pined so for home that she was discharged from the hospital before any marked improvement in her condition took place, although she was cured of the vomiting.

688. *Gee on Typhoid Fever with Parotid Bubo: Recovery.*—Dr. Gee, in the *Med. Times and Gazette*, February 1883, p. 180, gives notes of a case reported by Dr. A. Money. A boy, aged 3½ years, was admitted into the Hospital for Sick Children with a temperature of 103° F., and constant vomiting. About ten days after admission, there was swelling of the right parotid gland. The same evening, the temperature fell to 99.4°. The following day there was a discharge of matter from the right ear, followed the next day by double otorrhœa. Five days after the swelling commenced in the parotid, an incision was made, evacuating half an ounce of thick pus. Subsequent incisions were made into the parotid, which remained swollen and discharging for nearly two months. The patient recovered slowly, the temperature being high at times. At the end of nine weeks the patient was sent to a convalescent home, the otorrhœa having disappeared, and the parotid gland becoming of a natural size, and the general health very good.

689. *Hardy on Bleeding Coup-sur-Coup in Pneumonia*.—In an article in the *Med. Times and Gazette*, March 1883, p. 277, reference is made to a case where Professor Hardy astonished his audience by presenting to them a patient in which he had performed bleeding for pneumonia three times in twenty-four hours; a man, aged 37, of good constitution, and in good health until four days prior to admission, who was suffering from well-marked, acute pneumonia of the left side. After the third bleeding (1,100 grammes, or nearly 39 ounces, having been drawn off) the patient was greatly improved; the next day all fever had entirely ceased, the pulse 80 and respirations 18; the cough had disappeared, and the expectoration, which persisted awhile, was white and fluid. The local signs decreased in like manner, so that on the second day the sounds were almost normal over the whole lung.

690. *McCulloch on Persistent Hiccough*.—Dr. J. McCulloch in the *Lancet*, March 1883, p. 437, in referring to communications on persistent hiccough, which have lately appeared in that journal, states he was called to a case of an old gentleman, aged 87, who had been troubled persistently for three days and nights; he was instantly relieved by the inhalation of twenty drops of chloroform.

691. *Manson on Endemic Hemoptysis*.—Dr. Manson, of Amoy, China, in the *Lancet*, March 1883, p. 532, notices a disease of the lungs which he calls 'endemic hemoptysis.' As in endemic hæmaturia, the disease is caused by a parasite which is a species of distoma. There is a remitting or intermittent discharge of blood, and the ova of the parasite will be found in this discharge. Dr. Manson carried on his investigations for some time, examining over a hundred cases amongst the residents in Amoy, and did not come across any of the ova, but two patients came to him from Formosa, and in their sputa the ova were found. This caused him to apply to a friend of his in Formosa, from whom he learnt that blood-spitting was common there, and he sent two cases to Dr. Manson, in whose sputa the ova were readily detected. The treatment suggested is to use inhalations of quassia, koussou, santonin, &c. The name of Distoma Ringeri has been given to the parasite.

692. *Glover on the Curability of Cerebral Aneurism*.—Dr. Glover, in the *Lancet*, March 1883, p. 539, records a case of recovery from cerebral aneurism, where all the credit of the cure was due to nature. A patient (female) suffered from an aneurism of the internal carotid artery, which ruptured; the blood extravasated at the base of the brain was absorbed, and the patient recovered. For nine years she enjoyed good health, but another aneurism developed near the old one. One day she suddenly became unconscious, and remained so twenty minutes. The attack passed off, leaving only ptosis, dilated pupil, and strabismus. Ten days later she had a similar attack, but more severe. She, however, rallied; but a third attack followed, and the patient died. At the *post mortem* examination the ruptured aneurism was seen, together with the obliterated sac of the old aneurism, which had ruptured nine years previously.

693. *Mahomed on Albuminuria and Bright's Disease*.—Dr. Mahomed, in the *Brit. Med. Jour.*, March 1883, p. 593, answers some remarks of Dr. G. Johnson concerning the picric acid test for sugar and albumen, and says that, when Dr. Johnson remarked that Dr. Mahomed's reliance on un-

trustworthy tests for small quantities of albumen accounted for his published statements that granular kidney was often associated with albuminuria, he could not have had any personal knowledge of Dr. Mahomed's method and manner of examining urine. Dr. Mahomed asserts that many cases of chronic Bright's disease exist without the urine showing any signs of albumen.

694. *Neale on the Feeding of Infants*.—Dr. Neale, in the *Brit. Med. Jour.*, March 1883, p. 594, writes, attesting to the statement that injurious effects are produced by the use of condensed milk for infants; and refers to the *Medical Digest*, sect. 540: 1, where it can be seen that the number of those who disapprove of the use of condensed milk in feeding infants greatly exceeds that of the advocates of this plan.

695. *Sanctuary on Cases of Dilated Stomach*.—Dr. Sanctuary, in the *Brit. Med. Jour.*, March 1883, p. 612, and April 1883, p. 658, gives notes of four cases of dilated stomach from various causes, and describes a method he has adopted of washing out the stomach once or twice a day with various solutions, feeding the patient in the meantime chiefly by enemata. Dr. Sanctuary uses a siphon-tube, and by this means he is able to reverse the action of the fluid; first introducing it into the stomach by raising the vessel containing the fluid above the patient's head, and emptying the stomach by placing the vessel on the floor. The operation causes vomiting and retching at first, but the patient soon becomes tolerant of it. (The plan of washing out the stomach by the siphon-douche has been used by many during the last few years. Vide *Medical Digest*, sect. 850: 5.) RICHARD NEALE, M.D.

696. *Rodionoff on the Contagiousness of Phthisis*.—In the *Pract.*, 1883, No. 1, p. 10, Dr. J. Rodionoff reports four cases, which seem to speak in favour of the infectiveness of pulmonary consumption. One of the instances refers to a healthy puppy, which on two successive days had lapped up the expectoration of a dying phthisical woman. Four days later there appeared emaciation, loss of appetite, thirst, fever, and cough; the animal died about two and a half months after the appearance of the first symptoms. The necropsy showed the presence of caverns and caseous patches in both lungs; the mesenteric glands were increased in size and also contained caseous foci. The intestinal mucous membrane was ulcerated. [A similar case by Dr. Cullimore may be found in the LONDON MEDICAL RECORD, Nov. 1880, p. 448.—*Rep.*] In three other cases the patients were aged respectively 25, 40, and 13. They had been previously quite healthy, and became consumptive after they had been for some consecutive months in continuous contact with subjects suffering from advanced phthisis. This is one of the cases. A robust woman, aged 25, of healthy parentage, came to live in a small close room with her phthisical friend, whom she nursed day and night. Four months later she began to suffer from dry cough, and pain in the right side of her chest. Two and a half years afterwards she died from consumption. [See also Leudet's and Poulet's papers on the contagiousness of phthisis in the LONDON MEDICAL RECORD, Jan. 1883, pp. 21-22; Tappiner's, *ibid.*, May 1879, p. 189, and Oct. 1881, p. 422; Varguin's, *ibid.*, July 1882, p. 281; Burney Yeo's, in the *Brit. Med. Jour.*, June 1882, p. 895, and July, p. 7; C. T. Williams's, *ibid.*, Sept., p. 618; R. Robertson's, *ibid.*, p. 624; W. Pirrie's in the *Lancet*, Aug. 1882, p. 171; Giboux, in the *Revue*

d'Hygiène, June 20, 1882: Krücher, in the *Deutsche Med. Zeitung*, Sept. 7, 1882.—*Rep.*]

697. *Vasilevsky on Complication of Relapsing with Intermittent Fever.*—The writer reports (*Mediz. Obozr.*, July 1882) three cases of typical recurrent fever (with Obermeier's spirilla in the blood), in which the latest attack was followed by paroxysms of intermittent fever. The latter began in the first case on the third day after the last attack of recurrent, in the second on the second day, and in the third patient on the eleventh. Quinine cured all three cases.

V. IDELSON, M.D.

698. *Goedicke on Percussion of the Colon as a means of Diagnosis in Diarrhœa.*—Dr. Goedicke, staff-physician at Plön, draws attention (*Deutsche Medicinische Wochenschrift*, Feb. 14, 1883) to the importance of percussion of the colon in diarrhœa, as a means of diagnosis between different types of the affection, and, consequently, as an indication of treatment. Having proved, by careful observation, the fallacy of his first idea, that diarrhœa must necessarily be accompanied by an empty colon, and consequently a tympanitic percussion-note, he instituted a systematic percussion of every case which came under his observation, which led him to the following conclusions. 1. On percussion of both iliac fossæ in a healthy individual with regular evacuations, the (relative) dullness is generally found on the left side. 2. In patients suffering from diarrhœa, the dullness is found sometimes on the right side, sometimes on the left; oftener, in Dr. Goedicke's experience, on the left, in otherwise healthy persons, in whom the diarrhœa has not been long continued. 3. In children, the proportion is the same. 4. If pain on pressure be present, it is on the same side as the dullness. 5. The dullness is always to be understood as being merely relative; the actual note may even be loudly tympanitic, if the intestine is inflated by gas. Dr. Goedicke divides ordinary catarrhal diarrhœa into two groups, equally distinct in symptoms and in treatment. The first, which is the most common, occurs in otherwise healthy persons as the result of a chill or of an error in diet, supervening upon some derangement of the normal relation between the food and the reflex sensibility of the intestine, which has caused an accumulation of feces in the lower bowel, in spite of a daily evacuation. The symptoms are severe; cutting pains across the abdomen, following directly on the ingestion of food, and accompanied by urgent calls to stool, and the evacuation of fluid stools, mixed with shreddy masses, and very offensive, which may attain a frequency of sixteen to twenty in twenty-four hours. The appetite is generally good, and the tongue clean; there is no fever, and the pulse is normal in strength and frequency, although a beat may be occasionally intermitted. The abdomen is prominent, and any tenderness which may be present is found in the left iliac fossa; but the point on which the author lays most stress is the greater relative dullness on percussion on the left side, which is constantly present, whether the other symptoms be well-marked or slight. This is the form of diarrhœa which is met with in infants and children; and its proper treatment in all cases is mild purgation, opiates and astringents being contra-indicated, although a dose of opium may be given at first if the pain be very severe, or if it be advisable to let the exhausted patient have a few hours' rest before the laxative action commences. Dr.

Goedicke recommends decoction of frangula for adults, and small doses of calomel for children. The diarrhœa of the second group has its seat in the small intestine, and is the form most often treated of in text-books. The patients have been cachectic and delicate, with feeble digestion, and are sometimes tuberculous. The exciting cause may be an error in diet, or a chill, but often there are only to be found symptoms of the existing cachexia. The abdomen is soft and sometimes retracted, but it may be distended from meteorismus, and there may be gurgling in the ileo-cæcal region. In all cases, however, the relative dullness is found in the right iliac fossa. The appetite is small, and the stools seldom exceed two or three in twenty-four hours, but they are copious and watery, and are generally unaccompanied by pain. The treatment in these cases consists of opiates and astringents, with suitable diet, warmth, &c. The author concludes his paper with the opinion that the more percussion is employed in cases of diarrhœa, the more will opium as a remedy retreat into the background.

699. *Weiss on Pseudo-hypertrophy of the Muscles.*—At a meeting of the Royal and Imperial Society of Medicine in Vienna, on February 9 (*Wiener Med. Blätter*, No. 7, 1883), Dr. N. Weiss showed a case of pseudo-hypertrophy of the muscles. The patient, a girl aged 20, had first noticed weakness of the legs, especially in going up hill, at the age of 16; this weakness spread to the upper extremities in the course of the next year. For the last few months the abdomen had protruded considerably, giving the appearance of pregnancy. A sister of her mother had suffered in the same way. In the upper extremity, the biceps, brachialis anticus, pectoralis major, and latissimus dorsi, were atrophied; the other muscles were normal. The abdominal muscles were very much relaxed and extremely atrophied. The muscles of the lower extremities were much enlarged, and rigid to the feel, especially the flexors of the leg. The hypertrophy was marked in the muscles of the calf, which rose in swellings of the size of a man's fist during contraction. All the muscles in the body, with the exception of those of the calf, showed a diminution of contractility, especially the biceps, the adductors of the thigh, and the abdominal muscles. Lordosis of the lumbar and lower dorsal vertebræ was present. The patient could not bend her body without grasping both thighs with her hands, or holding on to some support. Electrical irritability was unchanged, and sensibility was undisturbed. The functions of the bladder and rectum were discharged without difficulty, except occasionally through weakness of the abdominal muscles. The urine contained only two-thirds of the normal amount of kreatinin.

ALICE KER, M.D.

700. *Collie on the Etiology of Enteric Fever.*—IN the report of the Homerton Hospitals for 1881, Dr. Collie, the medical superintendent of the Fever Hospital, describes an interesting experimental inquiry put in operation in order to test the opinion advocated by him that the so-called 'drain theory' is not in all cases sufficient to explain the diffusion of enteric fever. The four wards set apart for that fever had all their communications with the main drains cut off; and the stools of patients—who were kept in these wards only so long as they were confined to bed, being transferred to the small-pox hospital as soon as they became convalescent—were thrown into a pit dug for the purpose in one

of the airing courts and covered over with dry earth. The nursing staff of each ward consisted of a nurse and two assistant-nurses by day, and a nurse and one assistant-nurse by night, the assistant-nurses being all young, and therefore presumably susceptible to the disease. These arrangements, Dr. Collie believes, gave 'the conditions of a fairly accurate experimental inquiry;' and he expresses the opinion that, if any of these nurses contracted the fever, there was thus evidence that the source of infection could not have been the drains. The experiment was only begun toward the end of the year, but up to the date of the report three cases occurred in which the infection was probably to be traced to the wards in question. One of the assistant-nurses suffered from a mild attack of what apparently was enteric fever; a patient admitted with pneumonia contracted the fever some weeks after admission; and a visitor to a patient in these wards also became affected. No decisive conclusion can be drawn from these three cases, and a longer period of inquiry is necessary in order to obtain satisfactory proof one way or another. The further results of the experiment will therefore be awaited with considerable interest.

D. H. MANSON FRASER, M.D.

701. *Sirtori on Diphtheria, with Special regard to the Action of Pilocarpine.*—Dr. C. Sirtori (*Gazz. Med. Ital. Lomb.*, March 3, 10, 17, 24, 1883) finds that pilocarpine always causes sweating and sialorrhoea. Even in very small doses it occasions great depression; especially is this the case in children under five. By increasing the flow of saliva, it assists the dislodgment of false membranes: this is the only advantage to be gained from it. He thinks it should only be given in mild cases and in adults; in cases, in fact, which would recover under any treatment. In croupal laryngitis, its effects are more satisfactory. In diphtheria, his judgment is unfavourable to its employment. His treatment consists in giving quinine; and, where the throat looks gangrenous, salicylate of soda, plenty of support, wine, &c. Locally, pulverisations of disinfecting liquids, especially chlorate of potash, and a cold compress externally, are used. The subsequent paralytic affections observed by him are most commonly paralysis of the velum pendulum palati, with alterations in functions of speech and deglutition. The voice long remains nasal, the consonants being especially difficult to pronounce. Disorders of deglutition are the most obstinate. Diplopia and convergent squint occur. The lower limbs are oftener paralysed than the upper. The superior and inferior laryngeal nerves are often affected, the voice being lowered. He met with one case only of paralysis of the bladder, and this followed paralysis of the lower extremities.

702. *Maragliano on a Case of Pulmonary Cavity, treated by Intrathoracic Injection.*—Professor Maragliano relates this case in the *Gazz. Med. Ital. Prov. Venete*, March 10, 1883. A man, aged 26, with good family and personal history, had a bad fall, hurting his right side and causing slight hæmoptysis; this was followed by constant pain in the side, fever, muco-purulent expectoration, and great emaciation. On admission, the right chest was dull posteriorly below the eighth rib, with signs of a cavity. The cough was troublesome; the expectoration muco-purulent, very abundant, 500 cubic centimetres in the twenty-four hours. Elastic fibres, epithelium, and leucocytes were recognised by the microscope. Tar-water internally and inhalations

of turpentine lessened the expectoration. The temperature was high, reaching 39.8° C. (103.6° F.). Phosphate of lime and iron and cod-liver oil were given, but the patient continued to lose weight. Six cubic centimetres of a solution of nitrate of silver (1 in 25) were injected in the situation of the cavity, causing great pain for two hours, but no increase of temperature. The expectoration diminished marvellously, on the next day being only 30 cubic centimetres; it increased slightly afterwards. The patient would not submit to a second injection, and was discharged. He continued to improve rapidly, and a year afterwards, on examination, the dulness remained, but there were no râles, the respiratory murmur was abolished; cicatrization of the cavity had evidently taken place. The patient was in good health, and able to work.

703. *Pedrinì on Swallowing of Shot and Insufflation in the Treatment of Ileus.*—In three cases (*Gazz. Med. Ital. Lomb.*, Feb. 10, 1883), with well-marked symptoms of invagination of the bowel, obstinate constipation, stercoraceous vomiting, pain, &c., Dr. Pedrinì, after other remedies had failed to relieve, made the patient swallow five or six bullets and two kilogrammes of No. 3 shot, at the same time using prolonged and repeated insufflation of air by the rectum. In each case the success of this treatment was complete, relief being quickly obtained, and the patient making a good recovery.

G. D'ARCY ADAMS, M.D.

704. *Béclard on the Contagion of Measles.*—Dr. A. Béclard (*Gaz. Méd. de Paris*, Feb. 17, 1883), from a study of the conditions attending the contagion of measles, draws the following conclusions. Rubeola is contagious from the commencement of the period of invasion to the end of the stage of eruption, a period extending through from eight to ten days. The contagious principle is contained in the secretion of the respiratory mucous membrane, and it still remains to be proved that it has anything to do with the cutaneous desquamation. Although this contagion is diffusible, it is so only to a slight extent, and soon loses its active properties, and does not remain in the rooms occupied by the sick. The period of incubation lasts from thirteen to fifteen days; no immunity is conferred by the presence of any other eruptive disease.

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

705. SKIBNEVSKY, A.—On the Treatment of Erysipelas by Subcutaneous Injections of Resorcin. (*Mediz. Obozr.*, Dec. 1882, 885-7.)

706. YURINSKY, N. O.—The Treatment of Erysipelas by Trichlorphenol. (*Ejmed. Klin. Gazeta*, 1883, No. 5, pp. 73-5.)

707. BUTCHIK.—On Trichlorphenol in the Treatment of Ulcers. (*Proceedings of the Tambor Medical Society*, 1882, No. 10.)

708. D'ANCONA.—Nitrite of Amyl. (*Gazz. Med. Ital. Prov. Venete*, Feb. 3, 1883.)

709. SEMMOLA.—Iodoform in Chronic Pulmonary Affections. (*Giornale Internaz. delle Scienze Med.*, An. iv., Fasc. 7 and 8.)

710. BASSI.—Resorcin in Intermittent Fever. (*Gazz. Med. Ital. Prov. Venete*, Jan. 6 and 13, 1883.)

711. MARIANI Y LARRION.—Dyspnoea and its Treatment by Quebracho Aspidosperma. (*El Sentido Catol. en las Ciencias Med.*, March 1, 1883.)

712. CIANCOSI.—Bromide of Potassium in Catarrh of the Bladder. (*Union Med. of Caracas, and El Sentido Catol.*, March 1, 1883.)

713. MAGLIERI.—A New Remedy in Malarial Fever. (*Gior. di Clinica e Terapia*, March 1883.)

714. PANIAGUA.—Nettle-Juice in Metrorrhagia. (*El Genio Medico-Quirurgico*, Jan. 31 and March 7, 1883.)

715. GAUNT.—Iodide of Lead Ointment in Puerperal Mastitis. (*Brit. Med. Jour.*, March, p. 494.)

716. BROADBENT.—Hydrophobia Treated by Chloral. (*Brit. Med. Jour.*, March, p. 413.)

717. BROADBENT.—Cold Douche in Delirium Tremens. (*Brit. Med. Jour.*, March, p. 460.)

718. TOMKINS.—The Salicylates and Hæmorrhage in Enteric Fever. (*Brit. Med. Jour.*, March, p. 407.)

719. JAMES.—Injection of Sulphuric Ether for the Treatment of Sciatica and Lumbago. (*Brit. Med. Jour.*, March, p. 511.)

720. BUTLIN.—The Use of Chromic Acid in certain Affections of the Tongue. (*Practitioner*, March.)

721. BARWELL.—White Lead in Erysipelas. (*Lancet*, March, p. 400.)

722. RATTON.—On Concealing the Taste of Quinine. (*Lancet*, March, p. 438.)

723. WHITELEY.—The External Application of Salicylate of Soda in Acute Rheumatism. (*Lancet*, March, p. 436.)

724. The Treatment of Persistent Hiccough. (*Lancet*, March, p. 392.)

725. Lime-Juice in Menorrhagia. (*Lancet*, March, p. 437.)

726. HORNE.—Cascara Sagrada in Constipation. (*Brit. Med. Jour.*, March, p. 456.)

727. GRASSET.—Dangers of Ergot in Locomotor Ataxy. (*Le Progrès Méd.*, 1883, No. 11.)

728. ARNOZAN.—Paralysis following Injections of Ether. (*Jour. de Méd. de Bordeaux*, June 1882.)

729. PICK.—On Medicated Gelatine Dressings. (*Wiener Medicinische Blätter*, through the *Pharmaceutische Centralhalle*, March 8, 1883.)

ART. 705. *Skibnevsky on the Treatment of Erysipelas by Subcutaneous Injection of Resorcin.*—Dr. A. Skibnevsky, of Mojaïsk, in the *Medic. Obozr.*, Dec. 1882, p. 885, gives the notes of two severe cases of true erysipelas, which he treated by hypodermic injections of a 5 per cent. solution of resorcin, as recommended by Dr. Bogush (see the LONDON MEDICAL RECORD, Jan. 1883, p. 15). In one of the cases, that of a man, aged 50, with erysipelas of the face, scalp, and neck, thirty-five syringefuls were injected (twenty and fifteen in two successive days). In the second case, that of a woman, aged 38, with erysipelas of the right mammary region, twenty-two injections were made (twelve and ten in two days). As in Bogush's cases, swelling, tension, and redness greatly decreased by the end of the first day of the treatment, and the spread of the erysipelatous process entirely ceased during the second day. Within one or two hours after the first injection, the temperature fell from 40.2° C. (104.2° F.) to 38° C. (98.6° F.). In one of the cases it rose again to 38.6° C. (101.6° F.) some hours later; in the other, to 38° C. (100.4° F.), a day later; but in both of the patients it was normal on the third day.

706. *Yurinsky on the Treatment of Erysipelas by Trichlorphenol.*—Dr. N. O. Yurinsky, of Alexander Town Hospital, St. Petersburg, reports, in the *Ejned. Klin. Gazeta*, St. Petersburg, No. 5, pp. 73-5, four cases of erysipelas (three idiopathic, one traumatic) which he highly successfully treated by painting the affected parts with a solution in glycerine of trichlorphenol (5 to 10 per cent.). The painting was repeated twice daily; each time the parts were

freshly covered with cotton-wool retained by means of a roller. In two of the cases, swelling, redness, tension, and tenderness of the integuments disappeared after two paintings (on the second day of the treatment); in the remaining two patients, after six. In all the cases, the erysipelatous process did not spread after the first application. The temperature fell to standard in one of the cases on the second day of the treatment; in one, on the third; in the other patients, who suffered at the same time from relapsing fever, no change in the temperature was observed. The author eulogises the powerful antifermentative and antiseptic properties of trichlorphenol, and emphatically invites all professional brethren to give a more extensive trial to such a simple plan of the treatment of erysipelas, described above.

707. *Butchik on Trichlorphenol in the Treatment of Ulcers.*—Dr. Butchik (*Proceedings of the Tambor Medical Society*, 1882, No. 10) obtained excellent results from the use of 1 per cent. solution of Dianin's trichlorphenol (see the LONDON MEDICAL RECORD, 1883, April, p. 132) for dressing and irrigating ulcers of various kinds. He asserts that the beneficial influence of the new germicide agent is the more striking, the more the septic characters of the ulcers are pronounced.

V. IDELSON, M.D.

708. *D'Ancona on Nitrite of Amyl.*—Dr. D'Ancona says (*Gazz. Med. Ital. Prov. Venete*, Feb. 3, 1883) that nitrite of amyl acts on the vasomotor centres, and, causing relaxation of the vessels, diminishes the peripheral pressure and with it increase of the heart's force. Its action is very fugitive; and the effects pass off rapidly with the suspension of the inhalation. Dr. D'Ancona has obtained very striking results from its continued methodical administration in acute febrile diseases of the respiratory organs, complicated with, or owing to, organic disease of the heart. He has used it in these cases for the last five years, and always with good effect. With repeated inhalations the fever was never increased, rather the reverse, and cyanosis of the hands and lips disappeared. There was never any symptom of accumulation. He gives several cases as examples. Case 1. A man, aged 75, had left pleuro-pneumonia; the heart was enlarged in all diameters; the apex beat in the sixth space outside the nipple-line; there was a general murmur in both foci, especially mitral. Has suffered for many years from attacks of cardiac spasm, with irregular rhythm and dyspnoea. On the fifth day of illness the lung was two-thirds hepatized, and in the evening the pulse was very small, frequent, and irregular. The treatment was supporting (senega, ammonia, quinine, and wine); ether and valerian were given, but the heart-symptoms grew more alarming; the pulse was not to be counted; respirations 52 the minute. Five drops of nitrite of amyl were inhaled; the pulse improved; the respiration was 40. The improvement lasted half an hour, then the former state returned. The inhalation was repeated; the same improvement followed, lasting now nearly one hour. The inhalations were repeated every hour through the night and more rarely during the day. On the morning afterwards (the seventh day), the temperature was normal; the cardiac power was regained; and the patient became convalescent. Case 2. A lady, aged 60, had mitral stenosis and insufficiency, and diffused bronchial catarrh. Case 3. A man, aged

65, a drunkard, had fatty degeneration of the heart, and bronchial catarrh. This man died in a subsequent illness, and the heart was found fatty. Case 4. In a man, aged 72, heart was large, arteries rigid. He had acute right pleuro-pneumonia of the adynamic type. The author concludes that nitrite of amyl can be used in all cases of acute disease of the respiratory organs, when the defect of cardiac activity and great dyspnoea place the patient's life in jeopardy, with certainty of benefit and possibly saving of life.

709. *Semmola on Iodoform in Chronic Pulmonary Affections*.—Professor Semmola (*Giornale Internaz. delle Scienze Med.*, An. iv., Fasc. 7 and 8) was the first to make known that iodoform, administered by the mouth, is in part eliminated unchanged by the lungs. Its probable topical action during elimination led him to employ it in lung-disease. He and many other good Italian authorities speak most favourably of its action, especially in caseous broncho-alveolitis, chronic pneumonia, and bronchial catarrh, bronchiectasis, &c. In phthisis, the expectoration often diminishes rapidly and considerably, the cough is lessened, and the violent paroxysms disappear. The products existing in the bronchi, or in a more advanced stage in the foci of softening and caverns, are disinfected. The fever progressively diminishes, and he thinks that this diminution is in great part due to the local antiseptic action of the remedy, and to the diminution of putrid matter, which, becoming absorbed from the breaking up lung-tissue, represents one of the gravest consequences of the morbid process. The general health evidently improves, and cases in the first stage of caseous broncho-alveolitis may probably recover. The dose is from one-eighth of a grain to six or seven grains a day, and must be determined by the tolerance of the remedy by the digestive organs and the nervous system. It is best given in the form of a pill, with extract of gentian or other extract. He prefers to give it in small doses every hour, or every two hours. If it be not well tolerated by the stomach, it may be given in inhalation, dissolved in oil of turpentine, and administered three or four times a day.

710. *Bassi on Resorcin in Intermittent Fever*.—Dr. Bassi publishes (*Gazz. Med. Ital. Prov. Venete*, Jan. 6 and 12, 1883) twenty cases of intermittent fever treated with resorcin. In seventeen cases the treatment was most successful, in three cases it failed, but in these three quinine and arsenic also failed. Two were febrile in type (quartan), notoriously the most rebellious to treatment, and in the third the hygienic surroundings were of the worst. In one case resorcin postponed the attack, but did not prevent its recurrence; quinine also so far failed in this case. Two or three doses of resorcin of 2 or 3 grammes dissolved in water was sufficient; less did not influence the attack. If resorcin failed in the ordinary dose of 2 or 3 grammes (30 to 45 grains), larger doses of 6 to 8 grammes equally failed. No harm resulted from these large doses, but sometimes there was temporary deafness and singing in the ears. The rapid absorption of resorcin, which was noticed in all cases, makes it necessary to give the remedy half an hour to one hour before the expected access; if given at a longer interval it seems to exhaust its special action, and fails to influence the access. Resorcin seems to have the same value as quinine in this disease and in the same cases; where one fails, the other fails. It has the advantage of being comparatively much cheaper.

711. *Mariani y Larrion on Dyspnoea and its Treatment by Quebracho Aspidosperma*.—The author sums up as follows (*El Sentido Catol. en las Ciencias Med.*, March 1, 1883). 1. Quebracho diminishes the frequency of the respirations and cardiac contractions. 2. Its action appears to be principally directed on the heart, strengthening and regulating its contractions, either directly or by the influence of the nervous system. 3. This action is evident and immediate. 4. It is the only remedy which has a manifest antidyspnoeic action. 5. In nervous dyspnoeas it must be tried in a greater number of cases to judge of its action. 6. It probably produces the same effect in dyspnoea from acute affections of the thoracic organs. 7. The prolonged administration produces no alteration in other organs or functions.

712. *Ciancosi on Bromide of Potassium in Catarrh of the Bladder*.—In the *Union Médica de Caracas*, Dr. Ciancosi makes known the excellent effect of bromide of potassium, in doses of 50 centigrammes to 3 grammes a day, in vesical catarrh. He explains its mode of action by its depressing influence on the vaso-motor nerves, and on the cardiac plexus, which gives rise to a general ischaemia of the whole organism. The salt dissolved in the urine has also a local action on the mucous lining of the bladder. He has found the salt in the urine ten minutes after its administration.

713. *Maglieri on a New Remedy in Malarial Fevers*.—The new remedy (*Gior. di Clinica e Terapia*, March 1883) is simply decoction of lemons. Dr. Maglieri has obtained quite as good results as with quinine. He finds it efficacious in acute and chronic malarial affections. Given four hours before the onset of fever, it averts the paroxysm. This it did even in cases in which quinine had failed. In malarial cachexia the general health improved, and the liver and spleen were much reduced in size.

714. *Paniagua on Nettle-juice in Metrorrhagia*.—Paniagua publishes (*El Genio Medico-Quirurgico*, Jan. 31 and March 7, 1883) three cases in which nettle-juice was most successful. He uses the juice, submitting the whole plant to pressure in a hydraulic or other press. The juice is then filtered, and given in syrup and water. He says that it causes no irritation, and is well borne by the stomach. The extract and tincture may be used, but do not give as good results. G. D'ARCY ADAMS, M.D.

715. *Gaunt on Iodide of Lead Ointment in Puerperal Mastitis*.—Dr. Thomas Gaunt (*Brit. Med. Jour.*, March 1883, p. 494) reports on the good effects of iodide of lead in checking the secretion of milk. The method adopted is the following. The breast is smeared with the iodide of lead ointment, then covered with a piece of lint soaked in an alcoholic solution of acetate of lead (5ij. to ʒiv. to the pint). The lint should be frequently moistened, and in three or four hours the breast may be completely emptied by an experienced hand; the ointment should be used as a lubricant during the manipulation. By applying the iodide freely twice or thrice daily, the secretion will have ceased in less than a week, as a rule. A point of considerable moment is the partial anaesthesia produced, thus enabling the gland to be emptied without producing any acute pain.

716. *Broadbent on Hydrophobia Treated by Chloral*.—Dr. Broadbent, in the *Brit. Med. Jour.*, March 1883, p. 413, and also in the *Lancet*, March 1883, p. 305, gives the notes of four cases of hydrophobia treated by chloral, one of which recovered.

A paper was read by him at a meeting of the Clinical Society on Feb. 23, referring to the action of chloral given by the rectum in these cases. In the instance of a boy, aged 12 years, where there was no definite history of a dog-bite, the symptoms precisely simulated those of hydrophobia, and no drug had any effect on him until enemata of chloral, in twenty-grain doses, were administered every three hours. Recovery was complete after a few weeks. Other cases were mentioned, but death took place in all.

717. *Broadbent on Cold Douche in Delirium Tremens.*—Dr. Broadbent, in the *Brit. Med. Jour.*, March 1883, p. 460, in a paper read before the Medical Society of London, gives notes of a case of delirium tremens where nothing could produce sleep until the patient was stripped to the waist, and cold water applied to the chest, neck, and face by means of a large sponge. The result was that sleep was produced, and the patient much gratified by the result. Another case in which there resulted great benefit from cold water was in a lady who suffered from sleeplessness for some days after her confinement; after a cold douche, she had a refreshing sleep and recovered speedily. [Dr. Sayre, in 1862, and Dr. Brown, in 1878, both spoke warmly of this mode of treatment, *vide Medical Digest*, sect. 430 : 5.—*Rep.*]

718. *Tomkins on the Salicylates and Hamorrhage in Enteric Fever.*—Dr. H. Tomkins, in the *Brit. Med. Jour.*, March 1883, p. 407, draws attention to an article in the journal of Feb. 27, by Dr. Ferguson, of Perth, in which it was stated that the salicylates produced hamorrhage in enteric fever. Dr. Tomkins has published several cases in which he has used this agent in large doses, and has never found that any hamorrhage resulted from it; his experience is that the intestinal irritation is lessened by it, and a paper published by him in 1881 alludes especially to this subject.

719. *James on Injection of Sulphuric Ether for the Treatment of Sciatica and Lumbago.*—Mr. J. B. James, in the *Brit. Med. Jour.*, March 1883, p. 511, writes saying that he has had most successful results from this system of treatment of rheumatic patients. The plan of treatment is as follows. After preliminary dry-cupping over the seat of lesion, he injects subcutaneously ten minims of sulphuric ether, gradually increasing it till he reaches thirty minims, if no improvement have taken place in the course of a week. A brisk purge at the outset, and a mixture of salicylate of soda and gentian are of great benefit at the same time. [Several observers have testified to the great value of ether and chloroform injections in sciatica and lumbago.—LONDON MEDICAL RECORD, 1879, p. 161, and *Medical Digest*, 1241 : 1 and 2.—*Rep.*]

720. *Butlin on the Use of Chronic Acid in Certain Affections of the Tongue.*—Mr. Butlin, in the *Practitioner*, March 1883, contributes an article on the value of chronic acid in certain affections of the tongue. The first disease mentioned is a form of chronic glossitis, due to excessive smoking and drinking, often combined with syphilis; a solution of ten grains to the ounce, applied locally, proved very beneficial. Cases of syphilitic ulcer of the tongue were also treated with this solution, and improved rapidly. From experience of twenty-seven cases, the following conclusions are drawn. Chronic acid cures with marvellous rapidity secondary affections, ulcers, mucous tubercles, and condylomata. It produces no appreciable effect on tertiary

affections, gummata, extensive ulcers, or tubercular syphilides. How the acid precisely acts is not stated with certainty, but Mr. Butlin intends to take up the subject and to publish his researches at a future date.

721. *Barwell on White Lead in Erysipelas.*—Mr. Barwell in the *Lancet* (March 1883, p. 400), gives notes of five cases of erysipelas treated by painting the inflamed part with a coating of white lead paint, so as to form a complete covering over the inflamed skin; at the same time a good purge is given. The result is that the temperature quickly falls, the pain is relieved, and in a few days the epidermis desquamates, the paint coming off in flakes. No evidence of any absorption of lead into the system was detected in any of the cases.—[A reference to sect. 291 : 5 *Medical Digest* will show this treatment is nearly a quarter of a century old, and that white lead was then used as an external application in many other cases than erysipelas.—*Rep.*]

722. *Ratton on Concealing the Taste of Quinine.*—Surgeon-Major Ratton in the *Lancet* (March 1883, p. 438) writes stating a method he has lately discovered of disguising the bitter taste of quinine. It can be taken in very strong *café noir* cold without any inconvenience. It increases the bitter taste of black coffee without overpowering it. It is well to add a little sugar, and it forms a capital stimulant.

723. *Whiteley on the External Application of Salicylate of Soda in Acute Rheumatism.*—Mr. Whiteley, in the *Lancet*, March 1883, p. 436, writes, giving short notes on six cases of acute rheumatism, which benefited greatly from the external use of a lotion of salicylate of soda to the affected joints. The strength of the solution varied from 15 gr. to 20 gr. to the ounce. To those joints to which it was applied relief followed very quickly, whilst those joints to which it was not applied were not relieved like the others. [Dr. Orton, in 1882, made the same remark. *Vide LONDON MEDICAL RECORD*, 1882, p. 93.—*Rep.*]

724. *Treatment of Persistent Hiccough.*—In the *Lancet*, March 1883, p. 392, a number of letters appear on this subject, suggesting various modes of treatment. Hypodermic injection of morphia is recommended by a great many; others have found a strong dose of infusion of mustard very beneficial; but no one remedy can be depended upon for a cure, whereas a combination seldom fails.

725. *Lime-juice in Menorrhagia.*—In the *Lancet*, March 1883, p. 437, a letter signed 'Benedict,' in referring to communications in the *Lancet* of February 3 and 10 on the above subject, states that sucking the juice of one or two lemons is frequently practised, and with success, by many women to stop an inordinate flow of the menses.

726. *Horne on Cascara Sagrada in Constipation.*—Mr. J. F. Horne, in the *Brit. Med. Jour.*, March 1883, p. 456, writes concerning the benefit he has found from giving twenty-drop doses three times a day of the fluid extract of cascara sagrada (*rhamnus purshiana*) in cases of constipation, especially in cases of torpidity of the liver with dry stools and indigestion. Its action is similar to that of *nuxvomica*. RICHARD NEALE, M.D.

727. *Grasset on the Dangers of Ergot in Locomotor Ataxy.*—Prof. Grasset (*Le Prog. Méd.*, 1883, No. 11) records a case of locomotor ataxy in a man aged 38, who was getting on pretty well when he was seen by Charcot, who prescribed ergot in small doses gradually rising to one gramme (15 grains) daily. He returned with his prescription to his home at

Marseilles, when, without having the attention of any local medical man, he proceeded to carry out the treatment. On the second day on which the full dose was taken, he became paralysed in all four extremities, with loss of voice. On omitting the ergot, he recovered slowly. Dr. Grasset recalls the recent observations of Tuczek in an epidemic of ergotism, that all the cases presented symptoms of a lesion of the posterior columns of the spinal cord, and in some cases the complete picture of locomotor ataxy was developed. In four cases the cords were examined after death, and were found to present a symmetrical lesion of the columns of Burdach.

ROBERT SAUNDEY, M.D.

728. *Arnozan on Paralysis following Injections of Ether.*—The writer (*Jour. de Méd. de Bordeaux*, June 26, 1882) records four cases of small-pox patients in whom subcutaneous injections of ether were made, penetrating deeply as far as the hypodermis. From these facts the following conclusions may be drawn. 1. Injection of ether into muscles produces paralysis of the latter. 2. This paralysis has considerable analogy with peripheric paralysis; that is to say, it presents suppression or diminution of faradic excitability, increase of galvanic excitability, and return of voluntary movement before that of faradic excitability. 3. This paralysis is cured spontaneously but slowly.

729. *Pick on Medicated Gelatine Dressings.*—When a skin-disease has spread itself all over the body, it has hitherto been a difficult and tedious matter to apply and keep any requisite ointment in its place. Professor Pick (*Wiener Medicinische Blätter, and Pharmaceutische Centralhalle*, March 8, 1883) has, it seems, overcome this difficulty by the application of a gelatine dressing, which may be medicated with almost any desired substance. The operation is performed as follows. After taking a bath the patient is painted over with the medicated gelatine, previously melted over a water-bath, and when this has dried on the body, a thin coating of glycerine is employed, which prevents the gelatine from cracking, so that the gelatine dressing or bandage may be extended even over the several joints of the body.

PATHOLOGY.

RECENT PAPERS.

730. NEBYKOFF, V.—Researches on Etiology of Erysipelas. (*Inaugural Dissertation, Charkov*, 1882, and *Veterinarnyi Vestnik (Veterinary Herald)*, 1882, Fasc. 3, 4, and 5, p. 133-8.)

731. IGNATOVSKY, N.—A Contribution to the Study of Micro-organisms in the Blood and Perspiration in Relapsing Typhus. (*Mediz. Obozr.*, June 1882, pp. 846-7.)

732. VOBLVI, N. I.—Remarks on the Detection of Koch's Bacilli in Phthisical Sputa, and on Colouring Methods. (*Pratch*, 1883, No. 7, pp. 97-8.)

733. IVANOVSKY, N. P.—On Mycotic Nephritis Resulting from Erysipelas. (*Ejened. Klin. Gazeta*, May 30, 1882, p. 361-8.)

734. VASILIEFF, N. P.—The Bacilli of Glands and their Diagnostic Value. (*Ejened. Klin. Gazeta*, 1883, No. 6, pp. 81-5.)

735. ZENKEVITCH, Z. KH.—A Simplified Method of Detection of the Tubercle-Bacillus. (*Mediz. Obozr.*, Feb. 1883, pp. 210-11.)

736. FINKELSTEIN.—A Double Monster. (*Berliner Klin. Wochensch.*, Feb. 5.)

737. FLESCII.—The Anatomy of a Microcephalic Child. (*Centralbl. für die Med. Wiss.*, Dec. 9, 1882.)

738. LEWIN.—The Etiology of Hæmoptysis. (*Berliner Klin. Wochensch.*, Dec. 18.)

739. EIDINGER.—The Brain and Spinal Cord in Congenital Absence of the Forearm. (*Virchow's Archiv*, Band cxxix.; and *Centralbl. für die Med. Wiss.*, Jan. 13.)

740. FEUERSTACK.—The Condition of the Epithelium of the Pulmonary Alveoli in Fibroid Pneumonia. (*Centralbl. für die Med. Wiss.*, Jan. 13.)

741. VIRCHOW.—Catarrhal Ulcerations. (*Berliner Klin. Wochensch.*, Feb. 19 and 26.)

742. HANSEN.—The Bacilli of Leprosy. (*Virchow's Archiv*, Band xc.)

743. VERAGUTH.—The Reactions of Tubercle-Bacilli with Chromic Acid. (*Berliner Klin. Wochensch.*, March 26.)

744. SABOURIN.—The Relation of Fibrosis to the Subhepatic Veins in Annular and Insular Cirrhoses. (*Rév. de Méd.*, Feb.)

745. FLATTEN.—The Pathology of Diabetes Insipidus. (*Archiv für Psychiatrie*, Band xii.)

746. DORAN.—Papillary Cysts. (*Pathol. Soc. Trans.*, 1882.)

747. D'HEILLY AND CHANTEMESSE.—A Case of Aphasia.

748. JAMIN.—Tuberculosis of Synovial Sheaths. (*Bull. de la Soc. Anat.*, Feb. 17.)

749. CHEYNE.—The Tubercle-Bacillus. (*Med. Times and Gaz.*, March 17.)

750. RIEGEL.—Bronchial Asthma. (*Zeitschr. für Klin. Med.*, Band v.)

751. PERICE AND VEIL.—Chyliform Effusions in Serous Cavities. (*Jour. de Méd. et de Chir. Prat.*)

752. BRIEGER AND EHRLICH.—On Malignant (Edema in Human Subjects. (*Berliner Klin. Wochensch.*, 1882, No. 44.)

753. PRUDDEN.—The Bacillus Tuberculosis in Tubercular Lesions. (*New York Med. Rev.*, April 14.)

754. SAUNDEY.—The Changes in the Renal Ganglia in Bright's Disease. (*Brit. Med. Jour.*, Jan. 13.)

755. AXFORD.—Rupture of Cardiac Valves from Sudden Violence. (*New York Med. Jour.*, March 24.)

756. BABES.—Tubercle-Bacilli in Urine. (*Oriental Hygiene*, Feb. 18, and *New York Med. Rev.*, March 24.)

757. SMITH.—The Detection of Tubercle-Bacilli in the Breath of Consumptive Patients. (*Brit. Med. Jour.*, Jan. 20.)

758. GLOVER.—The Lesion of Myocarditis. (*Lancet*, Jan. 1883, p. 92.)

759. GRANT.—A Cure of Rupture of the Heart. (*Lancet*, Jan., p. 96.)

760. BASTIAN.—Cancer of the Pancreas. (*Med. Times and Gazette*, Jan. 1883, p. 64.)

761. HUTCHINSON.—The Local Origin of Malignant Growths. (*Brit. Med. Jour.*, March, p. 552.)

762. CHURTON.—Enchondroma of Both Lungs with Secondary Growth in the Brain. (*Lancet*, March, p. 540.)

763. CROOKE.—Bacilli in Scarlet Fever. (*Lancet*, March, p. 357.)

ART. 730. *Nebykoff on the Etiology of Erysipelas.* To study the part played by micro-organisms in the etiology of erysipelas, Dr. V. Nebykoff (*Charkov Inaugural Dissertation*, 1882; and *Veterinarnyi Vestnik*, 1882, Fasc. 3, 4, and 5), who conducted his researches under the guidance of Professor V. P. Kryloff of Charkov, examined microscopically the blood and serous fluid taken from thirty-four patients suffering from various forms of erysipelas. The serous fluid was collected either from the bullæ spontaneously developed, or from those produced at the periphery of an erysipelatosus focus by means

of blisters. Examination of the contents of blebs detected the presence of micro-organisms in thirty-two cases; in two others the results were doubtful. The cultivation-experiments, for which the author used, as culture-fluid, one or two per cent. solution of Liebig's extract, proved successful in twenty-nine cases; in twenty-one of them there were produced bacilli; in eight micrococci. The former, as to their morphological characters, resembled very much the other kinds of pathogenic bacillus (bacillus of anthrax, of enteric fever, and malaria); from these they seemed to differ only by their disposition to the formation of zoogloea and chains. The round bacteria were recognised by the author as identical with the 'micrococcus septicus' of Cohn, or 'microsporon septicum' of Klebs. Having compared the histories of the cases, the specimens from which gave the bacilli, with those of the patients whose lymph and blood contained micrococci, Dr. Nebykoff found that the former category of cases presented true erysipelas, while the latter included only instances of pseudo-erysipelas. He arrives at the conclusions which may be summed up thus. Both in true erysipelas and in pseudo-erysipelas, there are present lower organisms which enter into the blood and parenchymatous fluids of the body from without. True erysipelas and pseudo-erysipelas are two entirely different morbid processes. True or simple erysipelas is never accompanied by suppuration in the skin or subcutaneous cellular tissue; it either occurs without any previous lesions of the integument, or is associated with some slight cutaneous lesions, and clean, well-granulating wounds; the blood and lymph of patients suffering from this form of the disease invariably contain rod-shaped bacteria, which are carriers of the erysipelatosus poison, or, possibly, the poison itself. Pseudo-erysipelas, or phlegmonous erysipelas of the author (or deep erysipelas of Tillmanns), usually develops itself as a complication of unclean sloughing wounds, or of pre-existing deep suppuration of the skin and subcutaneous cellular tissue. It is, probably, as Roser teaches, a 'mild miasmatic pyæmia or septicæmia running its course locally.' The poison of phlegmonous erysipelas may be regarded as a mitigated (in Pasteur's sense) virus of pyæmia or septicæmia. The round bacteria which are invariably present in the blood and lymph of patients with pseudo-erysipelas are either carriers of this virus, or the virus itself. [See Fehleisen's researches on the pathogenic micrococcus of erysipelas in the LONDON MEDICAL RECORD, March 1883, p. 113, and the *Brit. Med. Jour.*, March 24, 1883, p. 569.—*Rep.*]

731. *Ignatovsky on Micro-organisms in Relapsing Fever.*—Dr. N. Ignatovsky, of Odessa Town Hospital (*Medic. Obozr.*, June 1882), has carried out a long series of microscopical observations on the spirilla, as well as other micro-organisms occurring in the blood and perspiration of subjects with recurrent fever. As to the spirilla, the author confirms the well-known fact of their appearing only during the febrile stages of the disease. Their agglomeration may be observed exclusively at the end of the attacks. The number of balls or bundles of the spirilla invariably increases as the moment of critical perspiration approaches. Guided by this phenomenon, the author was able to predict the time of crisis, without even seeing the patient from whom the specimen of the blood was taken for examination. It is necessary to add, however, that

the formation of spirillar balls is observed only in a certain proportion of cases. Besides Obermeier's spirochæta, Dr. Ignatovsky found in the blood of the patients some other micro-organisms, which he divides into three groups: 1, point-like bacteria; 2, bead-like; and 3, ovoid. The bacteria of the first kind have, under high magnifying powers, the appearance of minute puncta, presenting continuous spontaneous movements of every description. They occur not only in the blood and perspiration in cases of recurrent fever, but also in the blood of patients with typhus and typhoid fever. In recurrent fever, the point-shaped bacteria may be observed at the beginning of an attack before any spirilla are seen; they are absent when the latter come under observation, and reappear with the advent of crisis, when the spirilla disappear. The second group, that of the bead-like bacteria, present the form of filaments consisting of point-shaped micrococci, which are agglutinated by means of thin stripes of a homogeneous structureless substance. The movements of the chains are wave-like or pendulum-like, but always extremely slow in comparison with the rapid movements of the spirilla. The bead-like bacteria are met with almost exclusively at the beginning of an attack, before the appearance of the spirochæta. The ovoid bacteria, which show pendulum-like movements, are invariably present in the blood containing the point-shaped micrococci; in rare cases they may be found simultaneously with the spirilla, but at all events only during the earliest part of the typhous stage. In the cutaneous secretion of persons suffering from relapsing fever, the author could detect only the spherical bacteria, which were present in largest numbers at the beginning of critical perspiration. They occurred also in perspiration produced in febrile patients by pilocarpine. In small numbers they may be found in skin-moisture of healthy people. [Papers on the spirilla may be found in the LONDON MEDICAL RECORD, August 1878, p. 338; and Nov. 1882, p. 473.]

732. *Voblyi on the Tubercle-Bacillus.*—Dr. N. I. Voblyi, who carried out his investigations at Professor V. A. Manassein's clinic, examined (*Vratch.*, 1883, No. 7) the sputa of fifty-three patients. Thirty-five of them were phthisical (all febrile); eighteen suffered from other lung-diseases (four cases of chronic bronchitis, two of croupous pneumonia, four of emphysema, two of bronchitis in typhus, two of bronchitis in relapsing fever, four of bronchitis in typhoid). The author failed to find even a single bacillus in any of very numerous specimens taken from non-phthisical subjects, while he succeeded in detecting more or less abundant Koch's rods in the sputa from all the thirty-five phthisical cases. He found the micro-organisms even in the very scanty foamy non-purulent expectoration of patients who showed, of physical signs, only slight dulness over one apex, and some roughening of expiration without any rales. [In all of them, some weeks afterwards, dulness increased and fine rales appeared. One of these patients, in whom the author has diagnosed phthisis, mainly in view of the presence of bacilli in his sputa, and who has sought his dismissal from Crown service, saw his wish fulfilled. This is the first instance of an official's dismissal in Russia on the account of Koch's rods.] Such facts lead the author to differ from Professor Lichtheim's view of bacilli occurring only in abundant purulent sputa (*Fortschritte der Medicin*, Jan. 1, 1883.) From his observations, as

well as from the study of those published by Koch, Ehrlich, Guttman, Negri and Pinolini (*vide* the LONDON MEDICAL RECORD, Jan. 1883, p. 25), Balmer and Fränzel, Chiari, Pfeiffer, Lichtheim, Ziehl, and D'Espine, he draws the following conclusions. 1. The presence of bacilli in the sputa of febrile patients undoubtedly points to an incipient destructive process in the lungs, however slight the physical signs may be. 2. The absence of bacilli in the sputa does not exclude possibility of the pulmonary affection (as the cases of Ziehl and Lichtheim show). 3. The bacilli have no prognostic value, since rapidity of the development of phthisis may depend on a simultaneous affection of other organs beside the lungs. Dr. Voblyi at first tried to stain the bacilli after four methods (Ehrlich's, Balmer and Fränzel's, Rindfleisch's, and Schill's); afterwards he employed almost exclusively Balmer and Fränzel's system (this is a modification of Ehrlich's plan; see the *Berliner Klin. Wochensh.*, 1882, No. 45), which he recognises as the best of all. [See, also, papers on the tubercle-bacillus in the LONDON MEDICAL RECORD, Jan. 1883, p. 24 (Formad, and Marchiava and Celli); March, p. 91 (Balogh); in the *Brit. Med. Jour.*, 1882, Oct. 14, p. 735 (G. A. Heron and H. Gibbes); Oct. 21, p. 766 (H. Gibbes); 1883, Jan. 20, p. 105 (Charney Smith); Feb. 3, p. 193 (T. Henry Green); Feb. 17, pp. 304-6 (Dreschfeld); March 17, p. 507 (W. Watson Cheyne); March 24, p. 565 (Purser); and in the *Lancet*, 1883, Feb. 3, p. 188-90 (Heron).—*Rep.*]

733. *Ivanovsky on Mycotic Nephritis Resulting from Erysipelas*.—Professor N. P. Ivanovsky, of St. Petersburg, describes (*Ejened. Klin. Gazeta*, 1882, No. 22) the case of a girl, aged 8, who was admitted to a hospital, suffering from recent erysipelas of the abdomen. Within the next few days the disease gradually spread over a considerable part of the surface of the body, including the external genital organs. Soon after the subsidence of the cutaneous symptoms, there appeared signs of an acute affection of the thoracic and abdominal organs and anasarca. Four weeks later, the patient died. The necropsy showed acute inflammatory changes in the peritoneum, pleura, and pericardium; tumefaction and redness of the mucous membrane of the large bowel, with round ulcers at the spots of the solitary follicles; and enlargement of the spleen, liver, and kidneys. The chief pathological interest of the case lies in the alterations found in the left kidney. The latter was very considerably enlarged (far more so than the right organ); its cortex was increased in bulk, friable, of grey colour; the pyramids were hypertrophied, and stained dark red with numerous yellow streaks; its pelvis was inflamed and distended with turbid puriform fluid. Under the microscope, the yellow streaks proved to be the straight tubules filled with loosened and degenerated epithelial cells, granular detritus, and round bacteria. The micro-organisms were either disseminated amongst granular material, or grouped in colonies of various sizes, or within the epithelium. The contents of some of the tubules consisted almost exclusively of bacteria. The latter were seen also in the interstitial tissue, around the uriniferous tubes, as well as within microscopic abscesses. Lastly, thrombi were found in many capillary vessels. In the cortical substance of the organ, besides cloudy swelling and granularity of the epithelium of the convolute tubes, there was no change; the micro-organisms came to

sight but rarely. The same alterations were present in the right kidney, but in a less degree. Discussing the details of the case, Professor Ivanovsky comes to the conclusion that it was a typical instance of the renal inflammation described by Klebs as mycotic pyelonephritis. According to the author's opinion, the erysipelatous process (which he regards as having a parasitic origin) spread from the perineal region into the bladder and then crept along the ureter to the renal pelvis: from the latter, the organisms penetrated into the canaliculi of the pyramids, and gave rise to all phenomena of acute bacterial nephritis. In support of his hypothesis, the writer points (1) to the fact of the pathological changes being situated chiefly in the medullary substance, and associated with simultaneous inflammation of the mucous membrane of the renal pelvis; (2) to the fact of the bacterial colonies being present in the superficial layers of the latter structure (the colonies of micrococci found by the author in the mucous membrane of the renal pelvis were exactly like those detected by Tillmanns, Lukomsky, and others in the erysipelatous skin-tissues).

734. *Vasilieff on the Bacillus of Glanders*.—In the *Deutsche Med. Wochenschrift*, 1882, No. 52, and *Allgem. Med. Centr. Zeitung*, 1883, Jan. 3, Professor Schütz and Dr. Löffler have described a special kind of bacilli which they have detected in pustules, ulcers, and morbid internal deposits in animals diseased with glanders. The inoculation of these micro-organisms (isolated by cultivation) has produced unmistakable farcy in horses, rabbits, and guinea-pigs. [Almost simultaneously a similar discovery of a pathogenic micro-organism of glanders has been made by Drs. Bouchard, Capitan, and Charvin. (See the *Revue Méd. Franç.*, 1882, Dec. 30).—*Rep.*] The perusal of Schütz and Löffler's papers induced Dr. N. P. Vasilieff, of Alexander Town Hospital, St. Petersburg (*Ejened. Klin. Gazeta*, 1883, No. 6), to undertake microscopical examination of the blood, nasal discharge, and contents of pustules of various standing in an omnibus conductor, who was dying from glanders. The author obtained positive results. In all the preparations examined there were present rod-shaped bacteria, mostly lying isolated over the field of the microscope, seldom forming small groups, but almost invariably containing four or more spores. In regard to their size and shape, they were very much like the tubercle-bacilli. The micro-organisms were met with in largest numbers in specimens taken from a freshly developed pustule. No bacteria of any other species were found. Dr. Vasilieff feels justified in drawing the following conclusions from his observations on a single case. 1. In the blood, contents of pustules, and nasal discharge of glandered man, there are present the specific rod-shaped bacteria, which are identical with those discovered by Schütz and Löffler in glandered animals. 2. The presence of these bacilli may be regarded as having the same value for the differential diagnosis of farcy, as Koch's bacilli have for tuberculosis.

735. *Zenkevitch on Detection of the Tubercle-Bacillus*.—Finding the staining methods of Koch, Auerbach, Ehrlich, Balmer and Fränzel, Pinolini and Negri, Rindfleisch, &c., too complicated and slow, Dr. F. Kh. Zenkevitch, of Kieff, recommends (*Mediz. Obozr.*, Feb. 1883) the following plan as simple, quick, and effective. A lump of sputa is crushed and rubbed between two cover-glasses; then the glasses are separated and allowed to dry in the air; after

warming over the flame until the material becomes slightly brownish, the preparation is washed in water and put for one or two minutes in the staining fluid, which is a saturated solution of fuchsin in anilin water (2 cc. of anilin to 50 cc. of water). Then the preparation is again washed in water, and placed for one or two minutes in alcohol containing nitric acid (one drop of acid to each 10 cc. of alcohol). It remains now to once more wash it in water, dry in the air, warm over flame, and mount it in Canada balsam. The author states that this process of preparation makes the bacilli as clearly and brightly visible as Ehrlich's (or any other) method does. According to his description, a free bacillus, as a rule, has a length equal to one-fourth or one-half of the diameter of a red blood-corpuscle, the longest specimens being equal to three-fourths or even to the whole diameter. The longest rods contain from three to five intensely stained round granules (spores). Fuchsin stains also free spores, which are seen either isolated or grouped in colonies. The examination of the colonial spores allows all the stages of development of the microphyte to be traced from the form of granule to that of rod. Like Balmer and Fränzel, Marchiafava and Celli, Professor Dreschfeld, Kowalski (*Wiener Med. Presse*, 1883, No. 8), Giacomi (*Fortschritte der Medicin*, 1883, No. 5), Voblyi and others, Dr. Zenkevitch found the bacillus only in phthisis (in advanced and incipient alike). No rods were detected in the sputa of the patients with acute or chronic bronchitis, or emphysema, or croupous pneumonia.

V. IDELSON, M.D.

736. *Finkelstein on a Double Monster.—Union of Thorax and Abdomen.*—Dr. W. Finkelstein, of Jassy, Roumania, describes in the *Berliner Klin. Wochens.*, Feb. 5, a case of monstrosity, which consisted of two perfectly well-nourished male children. One child measured 49 centimètres from the vertex to the extremity of the foot; the other was 2 centimètres shorter. The scalps were hairy. The ears were flattened on one side, as if by having been pressed against each other. The extremities were well formed; both arms and legs on the inner side were smaller than those to the outer side of the body. The adhesion of surfaces of the body began 1 centimètre (= 0.393 English in.) below the sterno-clavicular articulation, and extended along the thorax and abdomen as far as the umbilicus—about 12 centimètres. The umbilicus was common to the two bodies, and was towards the front and sides of the abdomen. The umbilical cord was of the usual thickness, and was 86 centimètres in length, terminating in a single placenta. The external sexual organs were well formed. There was a single anus. The dissection was not as complete as it should have been, because the specimen had to be preserved for the Natural History Museum. The sternum consisted of the union of the two manubria, which served also for clavicles between both. The sternum preserved its normal direction for about 1 centimètre; then it became bent at an obtuse angle, the two sterna being fused into one, forming a firm medium of fusion of the two individuals. The number of ribs was normal, as was also their attachment to the sternum. The cavities of the thorax were not separated, but formed one large space, in which were the four lungs, two for each individual, two being imperfectly developed, small, atrophied, and in reverse position, the right lung to the left individual, and the left to the right. The other corresponding lungs were fairly developed. There was one common media-

stinum, one pericardium, and one heart, placed not to the left but in the middle line. The heart, which was of considerable size, had its apex, base, two aorta, two pulmonary arteries, four auricles, four ventricles, arranged symmetrically left and right; in fact, two hearts fused into one. There was one common abdominal cavity, with a double set of viscera.

737. *Flesch on the Anatomy of a Microcephalic Child.*—Herr Flesch contributes (*Festschr. zur Feier des 300 jähr. Bestehens der Univ. zu Würzburg, und Centralbl. für die Med. Wiss.*, Dec. 9, 1882) the anatomical examination of Franz Becker, aged 9 years. In bodily development he was very backward; his length from the base of the skull to the buttock was 44 centimètres (= about 16 English inches), his weight 5,502 grammes (= about 12 English pounds). The back part of his head was more fully grown than the fore part; the skull was more developed on the left than on the right side. In removing the brain it was torn, and about 300 cubic centimètres (= 18.3 English cubic inches) of fluid escaped. The greatest part of the cerebrum was distended by hydropic fluid in the ventricles, to the thinness of about 1 millimètre (= 0.39 English inch); only the parts corresponding to the frontal lobes and to the central convolutions showed distinct convolutions. There were only two sulci on the temporal lobes. The fissure of Sylvius was perceptible on the left side only as a slight sulcus; on the right side it was wanting. On the right hemisphere, central convolutions, an upper and a lower frontal convolution, the gyrus rectus, at the base, and the orbital convolutions could be distinguished. The left hemisphere was somewhat retarded in development. The corpus callosum formed a thin white body presenting a central groove. The lateral ventricles were distended into cavities reaching to the lateral and posterior fossæ; they communicated by an elliptical opening between the fornix and corpus callosum. The cornu ammonis and hippocampus minor had disappeared, as if by the extension of the walls of the ventricles. The choroid plexus was firmly united with the thalamus and the corpora quadrigemina. The microscope here discovered slight traces of inflammatory thickening of the pia mater, and pigmentation in one spot. The pons Varolii was shrunken. The medulla oblongata and pyramids were slender. The posterior cornua in the spinal cord were small, the anterior shortened; in both, the nerve-cells were scanty. In the pyramidal lateral columns there was a deficiency of axis-cylinders; the best developed were in connection with the cerebellum and the posterior vesicular column. The sympathetic was normal. The cranium had a capacity of 710 cubic centimètres (= 43.2 cubic inches) instead of 1100 centimètres. The transverse diameter at the upper border of the auditory meatus was 71 mm. (= 2.71 inches). The distance between the zygomatic process and the frontal bone was 66 mm. (= about 2.5 inches). The inferior maxilla was imperfectly developed; in the superior, the canine teeth were wanting. The vertebral column had been the seat of inflammatory disease, with curvature of the dorsal parts towards the right side, so that several ribs were displaced. The osseous system generally had distinctly undergone softening. The terminations of the optic nerves in the eyes were distended into ampullæ, and there was no macula in the right eye. Herr Flesch traces all these malformations

and defects backwards to the morbid condition of the corpora quadrigemina.

738. *Lewin on the Etiology of Hæmoptysis.*—Dr. W. Lewin, of Berlin, revives (*Berliner Klin. Wochens.*, Dec. 18) the views of some older physicians as to the influence of hæmorrhoids upon hæmorrhage from the lungs. The latter he supposes in certain cases to be vicarious with suppressed menstruation or hæmorrhoids, in persons otherwise in good health and free from any indication of pulmonary disease. Dr. Lewin assumes the physiological and anatomical position that the vascular system constitutes a complete and closed whole, and that a hyperæmic condition of one part is equalised by hæmorrhage from another part, as when leeches are applied to the anus for the relief of bleeding from the lungs. That such an occurrence is not more frequent, may be owing to the extensive distribution of veins in the intestines.

739. *Edinger on the Brain and Spinal Cord in a Case of Congenital Absence of the Forearm.*—L. Edinger describes (*Virchow's Archiv*, Band lxxxix., and *Centralbl. für die Med. Wiss.*, Jan. 13) the case of a man, aged 52, who had possessed only the stump of the left forearm, about the size of a child's fist, containing the rudiments of the radius and ulna. The nerves were atrophied, the radial least, the ulnar most. The roots of the five lower cervical nerves on the left side, especially the sixth and seventh, were distinctly atrophied. The number of nerve-cells in both anterior and posterior horns on the same side, from the fourth cervical to the third dorsal nerve, was greatly diminished, and even of these many could only be traced as rudimentary, and without processes. The surface of the brain showed a diminution in the number and size and depth of the convolutions and sulci on the right side. This was most evident on the right side from the gyrus frontalis to the fissura Sylvii. In the opinion of the author, these defects corresponded with the regions in connection with the median, radial, and ulnar nerves. The deficiency in the convolutions of the right side, and of the medulla, he refers to the defect in the peripheral regions; and he remarks that this defect obviously coincides with the earliest periods of development of the brain.

740. *Feuerstack on the Condition of the Epithelium of the Pulmonary Alveoli in Fibroid Pneumonia.*—Dr. W. Feuerstack, of Göttingen (Prize Essay, Göttingen, 1882, and *Centralbl. für die Med. Wiss.*, Jan. 13), describes the normal condition of the alveoli as a cohering pavement epithelium, in which two elements preponderate—viz., small granular nucleated cells, and larger nucleated hyaline laminae. Moreover, the nucleated cells are seen to undergo transformation into non-nucleated laminae. The examination of these structures by treatment with nitrate of silver gave useful results as to the pathological changes in these cells in pneumonia artificially induced in dogs. Some cells had undergone passive changes in the effused serum, whilst other cells remained unaffected. The nucleated granular epithelium-cells rapidly underwent fatty degeneration after a trifling proliferation, and the hyaline laminae showed the degeneration as a more gradual process. Dr. Feuerstack is not able to assign a causative relation between the alveolar epithelium and the coagulation of the fibrous exudation.

741. *Virchow on Catarrhal Ulceration.*—Professor Virchow (*Berliner Klin. Wochens.*, Feb. 19) and

26) combats the teaching of Niemeyer, that in acute and chronic catarrh ulceration or superficial erosion of the mucous membrane of the larynx may occur, and that the inflamed mucous membrane is then in a condition analogous to the denuded cutaneous surface after the rupture or puncture of a blister from a blistering plaster. At the same time, Niemeyer describes follicular ulceration. Virchow holds that from the mucous membrane in catarrh there is simply an excessive flow of its normal secretion, as may be seen in the nasal membranes. This secretion, flowing from an unimpaired surface, is the essential feature of catarrh, so much so that the phrase 'dry' catarrh is meaningless to the author, a contradiction in terms. Catarrhal ulceration is equally unintelligible to Virchow. A child, he observes, may have an irritating discharge of mucus from the nostril, which may accumulate about the nostril and lip and cause inflammation and ulceration thereof, but the ulceration being on the skin, and not on the mucous surface, cannot be correctly termed catarrhal. The ulceration of the larynx in phthisis is not catarrhal. The pavement epithelium which extends from the lips to the cardia, with the exception of a small spot at the border of the larynx, is not the seat of ulceration. Parts of the mucous tract that are lined with cylinder epithelium are not thus exempt from ulceration, as may be often seen in the intestines after persistent diarrhoea, and in other parts where glandular follicles exist. Virchow recognises only as catarrhal the secretion flowing from a simple mucous surface, and repudiates the application of this epithet to any secretion from glandular structures.

742. *Hansen on the Bacilli of Lepa.*—In *Virchow's Archiv*, vol. xc., Dr. Hansen records his experiments with the bacilli of lepra anæsthetica. Bacilli of lepra were not multiplied in beef-tea or in chicken broth. Satisfactory results were obtained under proper precautions with serum of human blood. In four days the number of bacilli were greatly augmented; many of the moving rods presented a beaded appearance, the knots lying at each end, often three or four in one bacillus. Thick, felt-like, shining fibres also were formed after a time; these represented a row of bacilli of a pearly lustre. On the fifth day, besides these elements, little groups of granules were then seen, arranged in lines; and, lastly, the preparation would be crowded with these. These minute granules were regarded as spores. Their culture was effected in the temperature of from 15° to 16° Cent. (59° to 61° Fahr.). The development of spores was seen in the brown desquamating cuticle. Probably their development might be arrested or retarded by a lower temperature of the integuments and coverings.

743. *Veraguth on the Reactions of Tubercle-Bacilli with Chronic Acid.*—It has been pointed out by Koch, and by Ehrlich, that the colouring of bacilli is interfered with in tissues that have been hardened in Muller's solution. Thus a multitude of preparations are rendered useless for the examination of these organisms. Dr. C. Veraguth, of Zurich, (*Berliner Klin. Wochens.*, March 26), suggests a modification of Ehrlich's process. The portions of tissue must be removed from the Muller's solution and exposed for two or three days to the action of running water, and then hardened in alcohol, during twenty-four hours. The sections may then be laid in diluted aniline-fuchsin for forty-eight hours, and for a few seconds exposed to the action of dilute

nitric acid which gives a dull, yellow colour—subsequent washing in water restores the red colour. After having been well washed it should be treated with methyl-blue; five or ten minutes is long enough for the section to remain in this blue colouring. Subsequently it should be washed in pure alcohol, and then mounted in Canada balsam. Dr. Veraguth submits the following cautions against failure in the colouring of bacilli in tissues. 1. Not ordinary fuchsin acid, but the alkaline fuchsin, in a crystalline state, should be used. 2. The fuchsin solution requires to be frequently renewed. 3. The reaction is not so sure in fresh structures as in those which have lain some days in alcohol. 4. The sections should only be so far coloured, by the acid, that the red colour is rapidly restored by washing in water. 5. With methylene blue, tissues rich in cells take a deep colouring which readily obscures the bacilli. The detection of these minute structures, Dr. Veraguth adds, requires some practice in the use of the microscope.

W. B. KESTIVEN, M.D.

744. *Sabourin on the Relation of Fibrosis to the Subhepatic Veins in Annular and Insular Cirrhoses*.—In the *Révue de Médecine* for February, M. Sabourin continues his observations (LONDON MEDICAL RECORD, March, Art. 304) and states that, while in annular (or venous) cirrhosis the subhepatic venous canals are essentially and completely cirrhotized, in insular (or biliary) cirrhosis the subhepatic veins are only accidentally and in part affected; and that this partial affection is due to cirrhotic extension from the portal spaces along the fine fibrous prolongation which emanates from the capsule of Glisson and proceeds to the wall of the subhepatic vein. He regards this microscopical feature as of great importance at the present time, when the theory of biliary cirrhosis is violently assailed.

K. W. MILLICAN.

745. *Flatten on the Pathology of Diabetes Insipidus*.—Flatten (*Archiv für Psychiatric*, Band xiii.) relates the case of a patient who had a severe injury to the left occipital region and left side of the neck, with temporary loss of consciousness. Variable diplopia, some loss of hearing on the left side, polydipsia, and polyuria followed. There was complete paralysis of the left internal rectus, and partial paralysis of the right external rectus. The urine amounted to twelve litres daily, but contained neither albumen nor sugar. The case was treated by mercurial inunction and iodide of potassium internally, with the effect of reducing the polyuria. This is the third instance on record of association of traumatic polyuria with paralysis of the sixth cranial nerve.

746. *Doran on Papillary Cysts*.—Mr. A. Doran (*Path. Soc. Trans.*, 1882) draws attention to the origin of those ovarian cysts which contain papillary growths. That is from the remains of the tubes of the Wolffian body in the broad ligament or from similar remains of that structure in the hilum of the ovary. Such tumours must always be more or less sessile, and the fluid contents are clear, not glairy. Cysts originating in the broad ligament may be distinguished from others originating in the hilum by the presence of the ovaries in the former case, while in the latter these organs are often destroyed by invasion and pressure.

747. *D'Heilly and Chantemesse on a Case of Aphasia*.—D'Heilly and Chantemesse report an interesting case of what they call verbal blindness

and deafness. The patient was a young woman, aged 24, who for four months had suffered from cough, loss of flesh, and pain in the hypogastrium. She could read and write pretty well. She suddenly lost the power of speech, and was taken to the hospital. To all inquiries she replied—'*Parce que, parce que, parce que*,' or '*Oui, monsieur*'; but she could evidently hear a watch tick, and played at écarté quite well. She recognised a friend with apparent pleasure, and could feed herself quite well. She appeared interested in what went on in the ward. Sometimes, when asked how she was, she replied—'*Je vous remercie, monsieur, je vais un peu mieux*.' She died of marasmus. At the necropsy there was tuberculosis of both lungs, the urethra, and vagina. In the brain there was thrombosis of a branch of the middle cerebral artery, with a patch of yellow softening occupying the posterior part of the upper half of the first temporo-sphenoidal convolution, the greater part of the inferior parietal lobule, the lobule of the geniculate gyrus, and a small portion of the geniculate gyrus itself. The third parietal convolution was intact. The island of Reil was only affected in its deepest parts, close to the claustrum.

748. *Jamin on Tuberculosis of Synovial Sheaths*.—M. Jamin (*Bull. de la Soc. Anat.*, Feb. 17, 1883) reported the case of a scrofulous girl, aged 19, who presented no signs of pulmonary consumption, but on the palmar surface of the first phalanx of the middle finger there was a tumour which had been growing eighteen months, which interfered with the movements of the finger. The skin on it was normal in colour, and slightly adherent; but there were no traces of inflammation. On removing it, it was found to grow inside the synovial sheath of the tendons, and adhered to the under surface of the skin, the superficial flexor tendon, and slightly to the tendon of the deep flexor. The tumour was irregularly lobulated in shape, reddish-grey in colour, and soft in texture. The microscope showed it to consist mainly of tubercular nodules, each occupied by a giant-cell, while the more fibrous part consisted of connective tissue infiltrated with lymphoid cells. Two similar cases of tubercular tenosynovitis have been reported to the same society: once by M. Lancereux in 1873, in the case of a phthisical girl with tumours in the palm of the hand, which were proved by microscopical examination after her death to be tubercular; the other by M. Berdinel in 1875, in which a tubercular man (aged 54) presented a similar tumour, but in this case no microscopical examination was made.

749. *Cheyne on the Tubercle-Bacillus*.—Mr. Watson Cheyne (*Med. Times and Gazette*, March 17, 1883) has repeated the earlier experiments on twenty-five rodents with proper antiseptic precautions, and found that tuberculosis followed in no single instance from the inoculation of pyæmic pus, vaccine lymph, setons, &c. Toussaint's micrococci were found to be incapable of giving rise to tubercle, and were not found in tuberculous organs. Koch's bacilli, on the other hand, invariably produced tuberculosis. Histologically the epithelioid cells of the tubercles were the seat of the bacilli; these cells in the lung are probably derived from the alveolar epithelium. In fibroid phthisis the bacilli are extremely few.

750. *Riegel on Bronchial Asthma*.—Riegel (*Zeitschr. für Klin. Med.*, Band v., p. 413) arrives at the following results. 1. Irritation of the bronchial muscles does raise the pressure within the lungs,

2. Stimulation of the vagus causes paroxysms of dyspnoea in dogs. But 3, when the central end of the left divided vagus is faradised, and the right vagus cut, the paroxysm occurs perfectly, so that it is probably produced reflexly through the intercostal and phrenic nerves. 4. Previous section of the phrenics prevented the paroxysm. 5. In spite of the spasm of the diaphragm, the lung border may move slightly.

751. *Perice and Veil on Chyliform Effusions in Serous Cavities*.—Madame Perice and M. Veil, in two recent theses (*Four. de Méd. et de Chir. Prat.*) have collected a number of cases of this kind. Veil relates one case of ascites in which the effusion was milk-like, contained a large amount of albumen, and, under the microscope, showed numerous fatty granules and very few leucocytes. The patient finally died, and there were traces of peritonitis, the liver being typical of syphilitic gummosis disease. In two other cases the milk-like fluid was not obtained at each puncture, the fluid being sometimes clear. Veil thinks the origin of the fat is from the transformation of pus, which dies and becomes emulsified, owing to some peculiar conditions of the effusion.

ROBERT SAUNDY, M.D.

752. *Brieger and Ehrlich on Malignant (Edema in Human Subjects*.—Brieger and Ehrlich (*Berliner Klin. Wochens.*, 1882, No. 44) report two cases of typhoid fever in which, after subcutaneous injection of tincture of musk, oedema occurred, spreading from the point of puncture, from which offensive gas and bloody serum issued on puncture. The liquid contained the bacilli found by Koch in the disease called by him malignant oedema, and hitherto supposed to occur only in animals.

753. *Prudden on the Bacillus Tuberculosis in Tubercular Lesions*.—Dr. T. Mitchell Prudden (*New York Med. Record*, April 14, 1883) has carefully examined the sputa in fifty-eight cases of phthisis, of which ten were confirmed by *post mortem* examination. Bacilli were present in forty-six, absent in twelve. Of the forty-six, physical signs of cavities existed in forty-one; of the twelve negative cases, physical signs of cavities existed in four only; in one, on *post mortem* examination, no cavities were found, but myriads of bacilli were found embedded in dense cheesy nodules in the lungs. The presence of spore-bearing bacilli bore no relation to the size of the cavities or the gravity of the disease. In six cases of chronic bronchitis, two cases of lobar pneumonia, and one case of lobular pneumonia, no bacilli were found in the sputa. Of nine cases of acute miliary tuberculosis, bacilli were found in eight. The case in which they were absent was one of acute general tuberculosis, and they were looked for in the tubercles of the lung, liver, kidney, pia mater, and ependyma of the lateral ventricles. Bacilli were found in six cases of acute pneumonic phthisis, in thirteen cases of chronic phthisis, in two cases of localised primary tubercular pleurisy, in eight out of nine cases of tubercular ulcers of the intestine, and in one case of tubercular ulcer of the larynx. In one case of primary tuberculosis of the bladder, ureter, and one kidney, no bacilli could be found in any part. No bacilli could be found in two cases of typhoid ulcer, nor in four cases of dysenteric ulcer of the bowel. Dr. Prudden thinks that failure to detect bacilli is no absolute proof of their absence, as decomposition produces changes which interfere with staining. Still he thinks it is legitimate to maintain a doubt as to the universality of the causal bacillus, and recalls the facts that Koch's experiments have

been on lower animals only, that Schöttelius has advanced reasons for thinking tuberculous meat harmless when eaten by man, and the numerous clinical observations which seem opposed to the new hypothesis.

754. *Saundby on the Changes in the Renal Ganglia in Bright's Disease*.—Dr. Saundby (*Brit. Med. Jour.*, Jan. 13, 1883) has examined the renal ganglia in fifteen cases of Bright's disease of various types, in order to test the accuracy of the statements made by Drs. Da Costa and Longstreth (*vide LONDON MEDICAL RECORD*, 1880, p. 455) as to the changes they had found in these organs and to their connection with the contracting form of Bright's disease. Saundby finds that changes are present in the ganglia in all forms of Bright's disease, beginning with cell-infiltration in the acute form, and going on to increase of stroma, and finally pigmentary degeneration of nerve-cells and wasting of stroma in the advanced contracting forms. Therefore, while he confirms in the main the facts of the two authors above named, he disputes the justice of their conclusion that the changes stand somehow in a causal relation to the contracting form, as we cannot escape the conclusion that the ganglionic lesions stand in the same relation to all the forms of Bright's disease, and are not more likely to be primary in one form than another, while very similar changes have been described in many other diseases, showing that structural change in various organs is very generally accompanied by signs of irritation in the ganglia. He regards the ganglionic changes as the result, or at most the concomitant, of the renal mischief.

755. *Axford on Rupture of Cardiac Valves from Sudden Violence*.—Dr. Axford (*New York Med. Record*, March 24, 1883) reports two cases of rupture of valves from sudden exertion. The first case was a lad, aged 16, who felt a pain in his chest after carrying a heavy weight. There was a regurgitant aortic murmur. No mention is made of the lad's previous history, except that he had enjoyed good health. The other case was a lad aged 15, whose horses were frightened while ploughing; the lesion was said to be rupture of the mitral valve.

756. *Babes on Tubercle-Bacilli in Urine*.—Dr. Victor Babes (*Orvosi Hetilap*, Feb. 18, 1883; *New York Med. Record*, March 24, 1883) has found Koch's bacilli in the urine of two cases in which *post mortem* examination showed tubercular disease of the kidneys and bladder. In a third case in which Professor Verneuil suspected tubercular disease of the urinary apparatus, the bacillus was found.

757. *Smith on the Detection of Tubercle-Bacilli in the Breath of Consumptive Patients*.—Dr. Charley Smith (*Brit. Med. Jour.*, Jan. 20, 1883) has succeeded in demonstrating bacilli in the breath of consumptive patients, by making them breathe through two thin sheets of gun-cotton placed in the outer compartment of an ordinary 'pepper duster' respirator (whatever that may be). This layer of cotton is then converted into collodion, run in thin films on slides, and stained by Gibbes' or by Ehrlich's method.

R. SAUNDY, M.D.

758. *Glover on the Lesion of Myocarditis*.—Dr. Glover, in the *Lancet*, Jan. 1883, p. 92, gives the notes of a case of myocarditis of a very pronounced form. The facts are as follows. Mr. C—, aged 50, was suddenly seized at his office with violent pain in the region of the heart and alarming syncope,

the pain extending down the left arm. After a few hours he was removed to his home and put to bed; all cardiac symptoms had disappeared, but the patient complained of pain across the transverse colon, and a feeling of indigestion, as he termed it. After three or four days he got up and began to walk about, and returned to business five days after the first attack, complaining only of weakness. On the eleventh day, not feeling well, and having pain in the chest, he was induced to remain at home and to apply poultices over the chest. Dr. Glover was sent for, and was just beginning to hear from the patient an account of his illness, when his head fell back in his chair and he died in a few minutes. *Post mortem* examination showed a good deal of fat about the heart, but no hardening of the coronary arteries. There was an ecchymosis on its inner surface opposite the base of the heart, to the left side in front. There was also a little recent lymph hereabouts. But the marked lesion was on the front of the apex of the heart, affecting apparently both the surface and a layer of the substance of this organ. At this spot there was a well-defined roundish patch, less than the size of a five-shilling piece. It looked badly damaged, and on the road to gangrene. The valves were healthy. The lungs were emphysematous and congested, but free from consolidation. The kidneys were hard, and had a few small cysts on their surface.

759. *Grant on a Case of Rupture of the Heart.*—Dr. Ogilvie Grant, in the *Lancet*, Jan. 1883, p. 96, referring to Dr. Coupland's case of rupture of the heart, reported in the *Lancet* of Dec. 5, 1882, gives the notes of a case which came under his own observation. A corpulent woman, aged 60, retired to her room much in her usual health, and next morning was found dead in bed. At the *post mortem* examination the pericardium was distended with large clots of blood; the heart was hypertrophied, and on its surface there was a large quantity of fat. On the posterior wall of the left ventricle, about two inches from the apex, there was a rent, through which a finger could be introduced into the ventricle. The valves were healthy, and no atheroma was detected. Microscopical examination showed fatty degeneration of the substance of the heart. The peculiarity of the case is that death occurred during sleep. [Mr. Grant's observation regarding the singularity of the heart rupturing during sleep is explained by Dr. Wilks, in a lecture published in the *Medical Times and Gazette*, May 1868, p. 545, where he states that hæmoptysis, cerebral hæmorrhage, and other forms of hæmorrhage, are more apt to occur during sleep, when the circulation is less active and the blood-pressure upon the vessels consequently greater. Vide *Medical Digest*, sec. 1410 : 3.—*Rep.*]

760. *Bastian on Cancer of the Pancreas.*—Dr. Charlton Bastian, in the *Med. Times and Gazette*, Jan. 1883, p. 64, reports a case of cancer of the pancreas in a woman aged 64, in which there were secondary nodules in the stomach, liver, kidneys, and in the skin. A *post mortem* examination enabled the growths to be examined; they were found to present the structure of scirrhus cancer. Dr. Bastian remarks that cancer of the pancreas is a notably obscure disease; the predominating symptom being, as in this case, continual pain, with paroxysmal exacerbations from time to time, often leading to an aneurism of the aorta being diagnosed just under the ribs, because, in many cases, the tumour is unable to

be felt at first; and, again, the tumour, beginning to envelop the aorta near the celiac axis, gives the impression of a slight dilatation of the vessel, and may lead to the production of a distinct systolic bruit.

761. *Hutchinson on the Local Origin of Malignant Growths.*—Mr. Jonathan Hutchinson, in the *Brit. Med. Jour.*, March 1883, p. 552, contributes a paper on the nature and scope of the local influences which induce malignant action. 'The more we investigate, the more clearly will we see that all inflammations are really infective, and that inflammatory processes may pass by almost insensible gradations into those of malignancy.' It is not so much senility of the entire organism as local senility (an old age of the tissues concerned, which is premature, and does not correspond with that of the body as a whole), that is almost always necessary to the production of cancer; exceptions occurring, however, in cases due to the influence of inheritance. Tissues and organs which are just passing out of use are those most prone to develop cancer. As to the inheritance of cancer, it has been urged that a disease which is capable of inheritance must be a constitutional one. This is true to some extent; but Mr. Hutchinson says that a peculiarity of cell-structure generally is inherited, not germs, not a blood-malady, but a special type of cell-organisation, permitting with greater ease than in other persons the injurious influences of local causes. The 'rodent ulcer' of the face is looked upon by the author as a form of morbid action which stands half way between common inflammation and cancer. There is also a distinct proneness possessed by parts formerly affected by syphilitic inflammation to become affected by some malignant growth. In conclusion, Mr. Hutchinson urges the adoption of his doctrine of a pre-cancerous stage, where surgical interference is necessary and ought to be insisted on, before the growth takes on any definite form except that resembling ordinary inflammation, and before the neighbouring lymphatics are affected; without this, he sees no hope of any improvement in the reduction of the mortality of cancer. In the debate which followed the reading of the paper, Sir James Paget drew attention to the marked influence which inheritance had on the production of cancer without any special local existing cause.

762. *Churton on Enchondroma of both Lungs with Secondary Growth in Brain.*—Dr. Churton, in the *Lancet*, March 1883, p. 546, gives notes of a case of a girl, aged 18, who came under his observation for shortness of breath and severe cough. The left leg had been amputated four years previously, but the exact nature of the disease was not ascertained. There had been wasting for sixteen months before she came under Dr. Churton. On examination there were the usual signs of effusion on the right side of the chest, and subsequently several ounces of blood-stained fluid were removed by the aspirator. After two or three weeks of frequent headache and vomiting twitches of the left arm and hand were noticed; and after this patient had fits at intervals, remaining unconscious for an hour or more. The patient gradually became worse, and died about two months after her admission. The *post mortem* examination showed: hard bony growth of the lower part of the right lung with scattered nodules through the anterior part, and also in the left lung. In the substance of the right cerebrum was a growth weighing nine drachms, which on examination proved to be ordinary osteo-enchondroma.

763. *Crooke on Bacilli in Scarlet Fever*.—Mr. Crooke, in the *Lancet*, March 1883, p. 357, relates five cases of scarlet fever, in which he detected bacilli in the nasal discharges and sero-purulent exudation from the inflammatory lymphatic tissue of the neck. A diagram is given of the bacilli, which are described as being leptothrix-like filaments, some straight, some curved, others bent at an angle. They vary in length from '001 to '0001 inch; their breadth is about '00025 inch. Some show rod segmentation very distinctly; in others small spore-like bodies are visible; and scattered all about the field are numbers of these spores or cocci.

RICHARD NEALE, M.D.

ANATOMY.

RECENT PAPERS.

764. THANHOFFER.—Nerve-endings in the Small Intestines. (*Centralbl. für die Med. Wiss.*, Jan. 20.)

765. ONODI.—The Connections between the Spinal and Sympathetic Nerves. (*Centralbl. für die Med. Wiss.*, Feb. 17.)

766. RICHTER.—Preservation of the Brain by a Dry Method. (*Berliner Klin. Wochens.*, Dec. 11, 1882.)

767. ADAMKIEWICZ.—The Blood-vessels of the Spinal Cord. (*Centralbl. für die Med. Wiss.*, Jan. 13.)

768. KAUBER.—Nerve-endings in Muscles. (*Centralbl. für die Med. Wiss.*, Nov. 1882.)

769. LUXARDO.—An Important Urino-Genital Anomaly. (*Gior. Internat. delle Sci. Med.*, An. iv.)

770. LEGGE.—A Circumtubular Lymphatic Sheath in the Testicle. (*Gazz. Med. di Roma*, Aug. 1.)

771. TUKE.—The Anatomy of the Pia Mater. (*Edin. Med. Jour.*, June 1882.)

772. UNNA.—Nerve-terminations in the Human Skin. (*Monats. für prakt. Derm.*, 1882, No. 8.)

773. MILLARD.—The Minute Anatomy of the Kidney. (*New York Med. Record*, June 1882.)

ART. 764. *Thanhoffer on Nerve-endings in the Small Intestines*.—Dr. Ludwig von Thanhoffer describes (*Centralbl. für die Med. Wiss.*, Jan. 20) what he considers to be a new arrangement of nerve-endings in the intestine. Having been engaged since 1871 with experiments upon the absorption of fat, he observed in frogs that the epithelium presented an arrangement in some parts differing from that of other portions. In very thin sections, stained with perosmic acid, or chloride of gold, the characters are readily observed. In transverse and (better still) in oblique sections, stained with osmic acid, Dr. Thanhoffer describes the existence of cup- or bud-like structures at the base of the villi, where the epithelium passes over from one villus to another, and upon the villi themselves. These bud-like structures consist of epithelial cells, similar to the gustatory corpuscles in the tongue. At the base of these buds, non-medullary nerve-fibres pass from the deeper cells upwards to the internal epithelial cells. These Dr. Thanhoffer regards as the nerve-endings. He can offer at present no more decided or definite opinion as to their nature. The function of these structures is undetermined: for instance, whether they take cognisance of thermal, tactile, or chemical stimulation. It should be added that they are (according to Dr. Thanhoffer) to be found in the intestines of all mammalia. [Before accepting the views of the author as demonstrated facts, it will be well to compare Dr. Beale's re-

searches on the termination of nerves (*How to Work with the Microscope*, fifth edition, 1880, p. 140 *et seq.*), where it will be seen that the so-called nerve-endings are simply fine network of nerve-fibres without an end.—*Rep.*]

765. *Onodi on the Connections between the Spinal and Sympathetic Nerves*.—Dr. A. D. Onodi, assistant to Professor Giza Mihalkovics, at the Anatomical Institute, Buda-Pesth, has (*Centralbl. für die Med. Wiss.*, Feb. 17) investigated this question, in the sympathetic of the horse, within an hour after its death. The special object of these observations is the relation of rami communicantes. The ganglionic cord was placed in an incubator heated to 38° R. (117.5° F.), and digested there from two-and-a-half to three hours. The connective tissue was thereby converted into a gelatinous substance, from which it was easy to separate the nerve-fibres. In horses, the cerebro-spinal nerves, reaching sympathetic ganglia by intervening rami communicantes, are divided into two different portions, and distributed in different parts of the ganglionic cord. From the sixth to the seventh dorsal ganglia, the greater part of the rami run an upward course in the ganglionic cord; only a small portion taking a downward course. The remainder take, for the most part, a downward course in the dorsal and lumbar regions. Corresponding with the preponderance in numbers of nerve-fibres, there is a change in the character of the rami communicantes themselves. As far as the seventh and eighth ganglia the white communicating branches run upwards, while grey fibres run downwards. The cerebro-spinal fibres from the seventh dorsal ganglion go to form the splanchnic nerves and coeliac plexus. Those in the lumbar region are traced to the abdominal aorta. White fibres are traceable from the eleventh to the fourteenth ramus into the diaphragm, sending branches also to the major splanchnic nerve. The grey fibres adhere to their corresponding ganglia, and form connections with the white fibres. Ganglia are often inserted among these fibres, having communicating branches. Unions of the grey and white fibres with the intervertebral ganglia have also been observed, but these branches Dr. Onodi has not found it possible to trace further. [In *Brain*, 1872, Mr. W. H. Kesteven stated the results of researches, from which he concludes that every cerebro-spinal nerve is connected with a sympathetic nerve; and that a sympathetic centre in the medulla oblongata has no existence.]

766. *Richter on the Preservation of the Brain by a Dry Method*.—At a meeting of the Berlin Psychological Society (*Berliner Klin. Wochens.*, Dec. 11, 1882) Herr Richter of Daldorf described the method he had adopted for preserving the brain in a dry state. The pia mater, having been carefully stripped off the brain, is placed in spirit for twenty-four hours, when it is removed to alcohol until it is hardened. For two or three weeks, the brain is, once or twice daily, also dipped into pyroligneous acid at the ordinary atmospheric temperature. The acid removes the spirit from the substance of the organ, and bestows preservative qualities. About the second day the surface begins to feel dry and presents a brown, and lastly a deep brown or blackish colour. After a few weeks it is perfectly hard and dry. In the subsequent discussion Herr Mendel stated that he had hardened brains by a solution of saltpetre in water (1 in 5 or 1 in 10). This plan, it was stated, had previously been adopted in France.

767. Adamkiewicz on the Blood-vessels of the Spinal Cord.—A. Adamkiewicz (*Wiener Akad. Sitzungsber.*, 1882, and *Centralbl. für die Med. Wiss.*, Jan. 13) says that, when the vertebral arteries are injected, the bulk of the injection finds its way to the cerebellum, and only a small portion enters the vessels of the medulla oblongata and of the cervical cord. The vertebro-spinal arteries are distributed to the spinal cord. The branches of these divide and ramify as far as the roots of the fourth and fifth cervical nerves, then anastomose and form one single stem. Their branches are the arteria sulci distributed to the fissures, and the arteria radicae, which spread laterally to the anterior roots. The so-called arteria vertebro-spinales posteriores spring from the vertebral between the dura mater and the cord itself, and take their course between the anterior and posterior roots as far as the fifth cervical nerve, anastomosing with other vessels and their own branches. The arteria penetrantes, so called by the author, are the largest branches of these, and penetrate the posterior roots. The spinal cord itself is not supplied by branches of the arteria vertebro-spinales; it derives its blood from a considerable number of vessels, spinal arteries so-called—branches of the intercostal, lumbar, and sacral, which enter the spinal canal beside the roots of the nerves. Adamkiewicz points out arteries (arteria magnae spinales) running deeply with the anterior nerve-roots. Each root of the brachial plexus has pretty constantly its own arterial twigs. Great variation is observable in the arteria spinales anteriores; each artery gives off an anastomosing branch. The distribution of the arteria spinales posteriores corresponds very closely with that of the anterior. Whilst the anterior form one continued chain of anastomoses in the anterior fissure, there are two such chains on the posterior surface (anastomoses laterales et posticae). The veins on the surface of the spinal cord exceed the arteries in capacity. On the anterior aspect there are three principal venous trunks—of which the largest traverses the anterior fissure, the other two accompany the anterior roots. The blood passes from these to the median, lumbar, and sacral veins. The author notes more especially: 1. the abundant supply of blood-vessels possessed by the spinal cord; 2. the unusual number and extent of anastomoses which the spinal vessels establish. These conditions readily relieve local disturbances of the circulation by affording increased collateral circulation. The same circumstances explain why myelitis occurs most frequently where the anastomoses are most feebly developed, and where an injection penetrates least readily into the middle portion of the dorsal region of the cord.

768. Rauber on Nerve-endings in Muscle and Tendon.—A. Rauber (*Centralbl. für die Med. Wiss.*, Nov. 1882) concurs with Tschirjeff in stating that in the muscular fibres there are no other than motor nerves, while in isolated points of the external sheath of the muscle there are wide-meshed networks of non-medullary fibres, which closer attention shows to be not a simple net, but an arborescent dichotomous division or ramification of the nerve-fibres. The fibres reach the muscular sheath after passing through the muscle. The ultimate branches form very full fibrils, which either terminate in small enlargements, or disappear suddenly in swellings, especially at the muscular terminations. On the other hand, Rauber asserts, in opposition to

Tschirjeff, that the corpuscles of Vater and Pacini are not absent in this situation, either in mammalia or in birds. They are found especially in the extremities, lying principally in the sheaths of the muscles; some, however, among the bundles of fibres. Physiologically, they belong to the same category as the corpuscles of the joints, but are smaller. Their function, Rauber believes, is the integrity of the muscular sense. The free arborescent form of ramification has, he thinks, a bearing upon the single functions of the nerves.

W. B. KESTIVEN, M.D.

769. Luxardo on an Important Urino-Genital Anomaly.—The author describes the case of a healthy young man who had three apertures on the apex of the glans penis, one above the other. The inferior aperture communicated with a canal 17 centimetres long, and large enough to allow the introduction of a catheter No. 11 Charrière. The urine came by this passage, which must, therefore, be considered as representing the urethra. The superior meatus permitted the easy introduction of bougie No. 7 Charrière; it measured 13 to 14 centimetres, and from it issued the semen in the act of ejaculation. The middle orifice was too small to allow the passing of an instrument. Dr. Luxardo could not find any communication between the superior and inferior canals, nor between the middle and lower passages; but he believes that one exists, since, on passing urine, a few drops were seen to issue from the middle meatus, and because, when the young man had an attack of gonorrhoea, the purulent discharge came from both, but not from the superior. This immunity of the superior the author cannot explain. Only two other cases of a similar anomaly are known; one described by Vesalius, the other by Cruveilhier.

770. Legge on a Circumtubular Lymphatic Sheath in the Testicle.—Professor F. Legge (*Gazz. Med. di Roma*, Aug. 1, 1882) has discovered that the seminiferous tubules are invested with a lymphatic sheath, to which he gives the name of circumtubular. It is formed of a continuous epithelioid layer surrounding the tubule, whose surface is also covered with a similar layer. Between the sheath and the tubule is a free space, in which can be seen a number of lymph-corpuscles. This circumtubular sheath can be most readily distinguished in the smaller animals, but the author has established its existence also in dogs, sheep, and man.

G. D'ARCY ADAMS, M.D.

771. Tuke on the Anatomy of the Pia Mater.—Dr. Batty Tuke (*Edin. Med. Jour.*, June 1882) is of opinion that a separate arachnoid membrane does not exist, and that the theory of a subarachnoid space should be given up; in place of this he would describe the brain membranes as two-fold, the pia mater and dura mater, and two spaces, the subdural and intrapiamatral spaces.

ROBERT SAUNDY, M.D.

772. Unna on Nerve-terminations in the Human Skin.—Unna (*Monatsh. für prakt. Derm.*, 1882, No. 8) states that in the human skin nerve-terminations are to be found similar to those described by Pflüger in the tadpole—namely, fine terminal twigs which end within the epidermic cells, two twigs entering each cell and ending in a terminal bud. Unna's method consists in removing the fat from the tissue first by ether, and then by ether and alcohol spray. The portion of skin is afterwards placed for several hours in half per cent.

solution of osmic acid, and cut into thin sections. In all the cells of the prickle-cell layer of the epidermis fine nerve-fibrils were found, two fibrils for each cell. The fibrils were applied close to the nucleus, but did not enter it, nor did they come into contact with each other. Unna believes that gold preparations are not trustworthy in studying nerve-terminations in the epidermis, and declares Ranvier's figures to represent a complete gold-impregnation of the interepidermic lymph-channels.

G. THIN, M.D.

773. *Millard on the Minute Anatomy of the Kidney*.—Dr. H. B. Millard (*New York Med. Jour.*, June 1882) summarises his recent studies thus. 1. The rods discovered by Heidenhain in some varieties of the tubuli uriniferi are part and parcel of a reticulum present within every epithelium. 2. The reticulum, including its elongated rod-like formations, is the living matter proper. 3. The relation of the rods to the rest of the reticulum of an epithelial body varies greatly, the variation probably being due to different stages or degrees of secretion. 4. The reticulum, including the rod-like formations, in the inflammatory process, both in catarrhal and in croupous nephritis, gives rise to a new formation of living matter, which results in the new formation of medullary corpuscles or pus-corpuscles. 5. The structureless membrane is lined by flat epithelial cells lying between it and the basis of the epithelia of the urinary tubules. 6. In nephritis the epithelial layers become considerably enlarged, and in catarrhal as well as in croupous nephritis they line the urinary tubules after the epithelia have been shed or lost; they surround the cast in croupous nephritis after the epithelia have perished in the formation of the cast.

TOXICOLOGY AND MEDICAL JURISPRUDENCE.

RECENT PAPERS.

774. WALLACE.—Effects of Breathing an Atmosphere deficient in Oxygen. (*Chemical News*, 1883, p. 158.)

775. WERNICH.—Neuroparalysis. (*Vierteljahrsschr. für Geichtl. Med.*, Band xxvii., p. 285, and Band xxviii., p. 33.)

776. RAIMONDI and BERTINI.—A Case of Santonine Poisoning in the Adult. (*Annali Univ. di Med.*, Nov. 1882.)

ART. 774. *Wallace on the Effects of Breathing an Atmosphere Deficient in Oxygen*.—Dr. William Wallace, a well-known professional chemist, relates (*Chemical News*, 1883, p. 158) an interesting series of cases where insensibility was produced by the inhalation of an atmosphere deficient in oxygen. Dr. Angus Smith had previously shown that if the normal proportion of oxygen in air, viz., 20·9–21 per cent., be diminished by $\frac{1}{4}$ per cent., there are appreciable effects resulting from the inhalation of the air, whilst a loss of $\frac{1}{2}$ per cent. gives rise to serious inconvenience. On the other hand, a man can breathe for a short time an atmosphere containing only 16 per cent. of oxygen and about 4 per cent. of carbonic acid gas. When the deficiency of oxygen exceeds this to a sensible extent, a candle refuses to burn, and a man exposed to it is speedily overcome and rendered insensible. On a recent occasion, some men were engaged on a bridge in sinking and luting together some iron cylinders; and for the purposes of

luting a composition was used which very rapidly absorbs oxygen. One day a man engaged in the occupation inside the cylinders was observed to become overpowered, and a companion descended by a windlass to bring him up. He managed to get him propped up in a bucket, in which he was pulled up to the fresh air, when he soon revived; but his deliverer was in turn overpowered, and, falling back into a pool of water at the bottom, was drowned. Another man now descended, taking care to fasten a rope to his body in case he too might be rendered insensible by the noxious gas which was now supposed to be at the bottom of the cylinder; and fortunately so, for he speedily succumbed, and was pulled up by the rope. Dr. Wallace clearly shows that there could have been no great excess of carbonic acid gas inside the cylinders; but that a substance was used in them which very rapidly absorbs oxygen—to the extent of 16 per cent. in one experiment in the space of two hours.

775. *Wernich on Neuroparalysis*.—Dr. A. Wernich has contributed an elaborate memoir on this subject (*Vierteljahrsschr. für Geichtl. Med.*, Band xxvii., p. 285, and Band xxviii., p. 33). He summarises his conclusions as follows. 1. The kind of death known as neuroparalysis, shock, &c., has not hitherto been satisfactorily explained by attributing it to concussion of the brain, inhibition and paralysis, lowering of body-temperature, or reflex paralysis of the heart. 2. On the other hand, enlarged knowledge has led to the term neuroparalysis being applied to a more limited number of kinds of death, not only as regards traumatic shock, but also with respect to death resulting from great alterations of temperature, poisoning, suffocation, &c. 3. Judging simply from the results of necropsies, there remain, however, a large number of cases of sudden death, sufficiently obscure to render an opinion as to the admission or rejection of the theory of death from neuroparalysis only possible after a careful consideration of the antecedent history of each case.

THOMAS STEVENSON, M.D.

776. *Raimondi and Bertini on a Case of Poisoning with Santonine in the Adult*.—This case is described in the *Annali Univ. di Med.*, Nov. 1882. A man, aged 40, sent to a general shop for two ounces of sulphate of magnesia, and took half of what was sent. He was seized shortly afterwards with vomiting, giddiness, and great prostration. He sent for a medical man, who found him shivering close to the hearth, livid in the face, breathing with difficulty, and vomiting incessantly. These symptoms were followed by repeated epileptiform convulsions. The patient eventually recovered. These were all the symptoms given. The remaining ounce of the material was sent to the authors for analysis. They first determined that they had not to do with any salt of magnesia. They found traces of lime, iron, and alumina; the bulk being an organic substance. Having found that this substance was not of the phenol class—a hydrocarbon, a glucoside, nor an alkaloid—they were obliged to resort to ultimate analysis, and determined the formula of C^5H^4O . Its point of fusing was $170^{\circ} C.$ ($338^{\circ} F.$). There is no chemical body possessing the required characters with this formula and point of fusion, nor with the double formula $C^{10}H^8O^2$. Of the numerous compounds with the nucleus, C^{15} , only one corresponds to a multiple of the formula C^5H^4O , and that is santonine, which also has the

required point of fusion (170° C.). This they confirmed with the characteristic tests of santonine. Yellow discoloration took place on exposure to light. Treated in the cold with fused caustic potash and alcohol, santonine gives at once a beautiful red colour. With a mixture in equal volumes of a very dilute solution of ferric chloride and concentrated sulphuric acid, and heating cautiously, santonine gives three colours—red, then purple, and finally violet, which is permanent for some time.

G. D'ARCY ADAMS, M.D.

PHYSIOLOGY.

RECENT PAPERS.

777. FANO.—A New Property of the Red Corpuscles in Mammals. (*Annali Univ. di Med.*, Nov. 1882.)

778. MAFFUCCI.—Experiments on Absorption by the Peritoneum. (*Giornale Internaz. delle Scienze Med.*, An. iv., Fasc. 7 and 8.)

779. ZIINO.—On Partial Extirpation of the Lung. (*Ibid.*, An. iv., Fasc. 7 and 8.)

780. KARLIN.—Vascular Innervation. (*Centrbl. für die Med. Wiss.*, Feb. 10.)

ART. 777. *Fano on a New Property of the Red Corpuscles in Mammals.*—Dr. Fano related, at the tenth annual meeting of the Italian Medical Association (*Annali Univ. di Med.*, Nov. 1882), his experiments with peptone, and spoke of the rapid cessation of the reaction of peptone in the blood; he demonstrated the transformations of peptone absorbed by the digestive tract or transfused into the blood-current, and how peptone may be transformed and stored up by the morphological elements of the blood. The transformation consists in a process of dehydration, by which the peptones are changed into coagulable albuminoids. The active elements of this transformation are the red corpuscles which, assimilating the peptones that enter into the circulation, increase the specific weight. It is probably to the potash salts, which the red corpuscles contain, that this dehydration of the peptones is due, by which they are transformed into globulin. For this process to take place, the presence of oxyhæmoglobin is an indispensable condition. The stored up albuminoids serve as a reserve supply of aliment, which is given up to the tissues as required.

778. *Maffucci on Absorption by the Peritoneum.*—Maffucci's experiments (*Giornale Internaz. delle Scienze Med.*, An. iv., Fasc. 7 and 8) were undertaken with the object of determining whether, besides the diaphragm, there are other absorptive points of the abdominal cavity, or whether it is an absorbing surface in all its extension. Where lymph and other corpuscular fluids are absorbed, has the peritoneum a special structure different from the other parts, as is noticed in the diaphragm? Are corpuscular fluids absorbed, by simple penetration, or do permanent or temporary apertures exist? What course these fluids, blood or lymph, or the two together, take? From experiments on thirty dogs he arrives at the following conclusions. 1. The diaphragm, great omentum, broad ligament, gastro-hepatic and gastro-splenic ligaments, the folds of Douglas, and mesorectum, and exceptionally the mesentery, are absorptive of corpuscular fluids. 2. Where absorption of these fluids takes place, there is a modification of

structure in the peritoneum, in the epithelioid lining, as well as in the subjacent tissue; in the diaphragm there are lymphatic lacunae, in the rest of the peritoneum lymphatic follicles, which from these experiments receive their physiological importance, hitherto conjectured only. 3. Corpuscular fluids are taken up by the lumbar and aortic glands, those of the hilum of the liver and spleen, and of the curvature of the stomach. 4. These fluids, absorbed by the diaphragm, are poured as much into the more complex glands of the mediastinum as into the system of follicles. 5. Comparing the abdominal cavity, and also the mediastinum, with the general anatomy of the lymphatic system, in the dog, the first as well as the second may be justly considered as a lymphatic gland with the respective follicles.

779. *Ziino on Partial Extirpation of the Lung.*—Professor Ziino, who occupies the chair of Forensic Medicine in the University of Messina, finds (*Giornale Internaz. delle Scienze Mediche*, An. iv., Fasc. 7 and 8) that dogs and rabbits bear well partial extirpation of the right or left lung, even if extensive. Death supervenes rapidly if the operation be attempted on both sides, the proximate cause being inflammation of the pleura and lung, and not pericarditis as Gluck asserts. Cicatrization of the lung takes place either by adhesions to the internal surface of the thoracic cavity at the site of operation, or to the pericardium or elsewhere, or by healing without forming adhesions, as happens to the pedicle in ovariectomy and similar operations, or lastly, by connective bands which hold up and so suspend the lung. Wounds of the lungs, although with loss of substance, are not necessarily fatal, the cause of death is rather suppurative inflammation (traumatic pleuro-pneumonia) than pneumothorax or internal bleeding; those lesions of course excepted which kill *ictu fulmineo* from enormous destruction of lung-tissue, as gunshot wounds, falls from a great height, and lacerations from the passage of a heavy body, such as a wagon, over the chest.

G. D'ARCY ADAMS, M.D.

780. *Karlin on Vascular Innervation.*—B. Karlin (*Centrbl. für die Med. Wiss.*, Feb. 10) disputes the statement that after division of the sciatic nerve the temperature of the posterior extremities returns to its normal standard in a short time. He finds that it will remain for months at one height. A small thermometer was bound in between the toes of the hind paw of a dog, and both feet immersed in ice-water. Before immersion, one sciatic nerve was divided. The temperature in the foot on that side fell at first more rapidly, then more slowly, than that of the other limb. If the sciatic nerve of the limb previously immersed in the ice-water were divided, the temperature rose, and in white rats the dilatation of the vessels was perceptible. If the peripheral extremities of the sciatic—divided while immersed in water—were stimulated by an induction current, the author states (in opposition to Bernstein) that he observed a regular fall of temperature; while, on the cessation of the stimulus, an increase took place (*Edgren, Nord. Med. Ark.*, 1880; Rosenthal, in *Hermann's Handbuch*, Band iv., § 430). By immersion of the paw in water of a temperature between 30° and 40° R. (95° and 105° F.) an elevation of temperature was occasioned, and in white rats a distinct dilatation of vessels. A division of the sciatic nerve induced no further change. Electrical excitation (the higher the temperature) caused within certain limits the greater amount of dilatation. In

the author's opinion, the tone of the vessels was maintained by on the one hand, adjacent ganglia; on the other hand, by vaso-constrictor nerves: Karlin does not recognise vaso-dilator nerves.

W. B. KESTEVEN, M.D.

REVIEWS.

ARTICLE 781.

A Practical Treatise on Electro-Diagnosis in Diseases of the Nervous System. By A. HUGHES BENNETT, M.D. London: H. K. Lewis. 1882.

THIS book may well be credited with what is claimed for it by its author—viz., with being a compendium of all that is as yet definitely known on the subject with which it deals. There is no other book in the English language which sets forth so clearly, if indeed at all, the facts on which rests the diagnostic aid to be derived in the study of nervous diseases from the careful use of electricity.

The value of this agent in diagnosis is now fairly recognised, and though, perhaps, at present not very great in extent, is certainly of a very definite nature. The author shows in the book before us that in some cases the result obtained by electrical examination is merely corroborative of that arrived at by other methods; that in others it may assist in clearing up doubtful questions; while it may occasionally give us perhaps the sole clue to a right opinion. In endeavouring to assign thus to electricity an important place among diagnostic methods, Dr. Bennett is at praiseworthy pains to avoid exalting his subject unduly; and by treating it with due regard to scientific proportion he sets an example which many medical writers would do well to imitate. The author is to be congratulated too on having confined this treatise entirely to the diagnostic aspect of electricity, securing thus its claim to be regarded as a purely scientific work—a claim which might have been somewhat injured, had he embarked, as there is so much temptation to do, on the still dangerous but alluring sea of electro-therapeutics.

After a concise account of the two kinds of current mainly used in this branch of research, and the methods of their application, which, as the author rightly insists, demand due knowledge and more than superficial study, we have given us a clear statement of the nature of the reactions found in the healthy body, as regards both nerve and muscle. We could have wished that under this heading it had been more definitely stated, as indeed it is stated elsewhere in the book, both directly and by implication, that there is no true farado-muscular contractility; that the *faradic* current evinces its action only on the nerves, the contractions seen when the electrode is placed on the muscle being probably due to stimulation of the intramuscular nerves. This point is important in view of the conclusions drawn in those cases where muscular response is elicited by the *galvanic* current alone. An occasional confusion might be caused in the mind of the beginner by the absence of this definite statement from its proper place, and the somewhat hasty way in which the question is passed over generally.

In the next chapter information is given as to how far direct experimental research has demonstrated a relation between histological structure and the functions and electrical reactions of the different tissues. A right understanding of this is obviously

necessary before drawing any great conclusions from what appear to be abnormal responses to electrical stimulation. That there is still something to be learnt on this head is superficially apparent from the consideration, on the one hand, that in some cases of injury to nerve with structural degeneration, the response to both currents remains below the normal standard, even after voluntary motion has quite recovered; and, on the other hand, that we may find loss of voluntary motion with normal electrical reactions; the affections alluded to in either case being peripheral in origin. It perhaps is not entirely satisfactory to read as an explanation of the *first* of these cases that, although the nerve has sufficiently recovered to convey voluntary impressions of motion, it is owing to the recent changes in structure that it has not yet completely attained its electrical excitability; and of the *second*, that, although the lesion is sufficient to cause paralysis, it has not led to structural changes in either nerve or muscle.

Chapters VII. and VIII., on the electrical reactions in disease generally and in specialised instances, form the most important part of this book, and are most valuable from being entirely free from the common practice of copying from the works of others. Although Dr. Bennett makes no claim to originality, we think he deserves perhaps the greater praise for laboriously verifying all that he teaches us, and refusing to take any previous statement for granted. This part of the book is a study *de novo* from original cases of the influence of the electrical currents in different kinds of nervous mischief. One point—recognised, of course, by all students of nerve disease and the electrical method of investigation—may be well emphasised after the perusal of this book, with advantage to those who have not paid attention to the subject. No one after reading these chapters will retain the notion that 'degeneration,' as shown by the electrical tests, is in all cases grave or incurable, or that serious paralysis and abnormal electrical reactions have a direct ratio one to the other. A case showing the 'reaction of degeneration' may recover completely, as is shown in facial paralysis; while everyone knows that an incurable cerebral palsy is generally accompanied by perfectly normal electrical responses.

In the concluding chapter of this book we have a valuable series of selected cases proving the 'practical utility of electro-diagnosis.'

As an example of this we may quote Case 6, where paralysis of the lower part of the face on both sides, closely simulating and mistaken by all who observed it for bulbar palsy, was shown by electrical examination to be accompanied by reactions negating central disease but according with peripheral nerve-paralysis. The necropsy proved that the latter condition existed, in direct connection with extensive disease of the bones at the base of the skull.

Interesting instances are also given (1) of a case which was taken to be progressive muscular atrophy from its general symptoms, but was proved by electrical tests and its rapid recovery to be simple emaciation; and (2) of a case of supposed simple emaciation, proved to be due to progressive muscular atrophy. It may readily be admitted that if the electrical test was not all-important in the two latter cases, as it doubtless is in some few instances, yet its practical value as a ready aid in eliminating some fallacies is beyond question.

A general summary of the electrical reactions in paralysis ends this very useful book, which deserves soon to reach a second edition, in which we hope the author will correct the numerous verbal inaccuracies and clerical errors which, though scarcely ever of material importance, most sorely disfigure his pages.

H. DONKIN.

ARTICLE 782.

A Treatise on Diseases of the Eye. By HENRY D. NOYES, M.D. London: Sampson Low & Co. 1882.

This book forms a systematic and useful compendium of eye-diseases. It is fairly illustrated by woodcuts, very few of which, however, claim originality, and by eighteen coloured lithographs of the fundus of the eye as seen ophthalmoscopically. These last constitute by no means the best part of the work, being rather small and not well coloured.

Under the head of strabismus, we have a valuable and useful summary of the causes of this condition. Many, however, will be disposed to disagree with the view adopted by the author as to the cause in most cases of the amblyopia of squinting eyes.

The section on cataract is good. The author makes his incision in such a way as to cut first of all the nasal part of the sclerotic, then the outer part, and finally the apex. For this he claims certain distinct advantages. He rather avoids, in opposition to the recent teaching of some authorities, the formation of a conjunctival flap. It should be noted that he fails to indicate the exact position of his puncture and counterpuncture in relation to the sclero-corneal junction. Contrary to his experience, the washing of the conjunctiva with boracic acid solution at the close of the operation has, in our hands, given rise to considerable irritation. He says little about, and certainly does not appear to approve of, the extraction of the lens in its capsule after the manner of Pagenstecher and others.

The index scarcely appears to be compiled with the same care as the rest of the book. In rare instances, a word is omitted altogether, and occasionally one is misspelled.

But the clearness and precision of the descriptions, and the variety and extent of the therapeutical agents employed, will always render the book one of equal value to the student and to the busy practitioner.

W. A. BRAILEY, M.D.

DIETETIC NOVELTIES.

ARTICLE 783.

MELLIN'S FOOD.

MELLIN'S Food for infants and invalids is an old and well-established favourite. It consists of brown sweet granules, which dissolve readily in water. It is made from wheaten flour, coarsely broken malt, and 1 carbonate of potash. These ingredients are mixed with water, and placed in a large digester, where the starch undergoes conversion into dextrine and grape-sugar. The product is strained through sieves in order to separate the husks and bran, and is finally evaporated to dryness in a vacuum pan. Dissolved in fresh cow's milk, it forms an admirable food for young children. For infants under three months, half a teaspoonful may be stirred up in a quarter of

a pint of warm water, and mixed with an equal quantity of milk. For older children, a teaspoonful of the powder is dissolved in four teaspoonfuls of water and mixed with about half a pint of milk. It is hardly necessary to say that the milk should not be boiled.

MISCELLANY.

THE RESULTS OF OBJECTIONS TO VACCINATION.—Mr. Tweedy, in the *Lancet*, March 1883, p. 387, in commenting on the necessity of vaccination, cites a case which came under his notice at Moorfields Eye Hospital. A child, aged five years, was brought to him for advice; the features were hideously deformed by dense and deep cicatrices of keloid character, and both eyes were irrecoverably destroyed. The child had been attacked with small-pox six months before; it had never been vaccinated; the mother had never been vaccinated, and was deeply 'pitted' with small-pox in childhood. The father had been vaccinated and never had small-pox. They had three children, only one of them had been vaccinated, and she escaped small-pox, when the others had it. Thus, out of a family of five, two only escaped, and they had been vaccinated. The mother further gave evidence that at the birth of the two unvaccinated children she was attended by a midwife, whereas a medical man attended her when she was confined of her second child, which had been vaccinated.

THE EFFECT ON HEALTH OF THE USE OF ANILINE DYES.—In the *Lancet*, March 1883, p. 391, a letter appears signed 'Subscriber,' drawing attention to an agitation set on foot in Germany, prohibiting the use of aniline dyes in the manufacture of articles of clothing. Much was said some time ago about arsenical wall-papers, and their prejudicial consequences; and, seeing that aniline dyes are 'fixed' with the same fatal poison, how much more serious must be the effect of a garment upon the wearer, whose body is all day in contact with its subtle and deleterious influence.

THE BRITISH ASSOCIATION.—The first programme of the next meeting of the British Association has been issued. This takes place at Southport on September 17, under the presidency of Professor Cayley. The presidents of the various sections are as follows:—A, Mathematical and Physical Science, Professor Henrici; B, Chemistry, Dr. J. H. Gladstone; C, Geology, Professor W. C. Williamson; D, Biology, Professor E. Ray Lankester; E, Geography, Colonel E. H. Godwin-Austen; F, Economic Science and Statistics, Mr. R. H. Inglis Palgrave; G, Mechanical Science, Mr. James Brunlees. Among the more popular features will be a *soirée* on the evening of September 20; a discourse on recent researches on the distance of the sun, by Professor R. S. Ball, on Sept. 21; a discourse on galvanic and animal electricity, by Professor J. G. McKendrick, on September 24. Excursions to places of interest in the neighbourhood of Southport will be made on the afternoon of Saturday, September 22, and Thursday, September 27.

WOMEN DOCTORS IN THE EAST.—Some time since we alluded to the work done in China by an American female physician, Miss Howard. She has attended the mother of Li Hung Chang, the great Viceroy, and now we read she is treating the wife of the same high official. The fame of the lady doctor appears to have spread far and wide over North China, and she is now flooded with applications for assistance and advice from the women of wealthy families, who would die rather than be treated by a foreign male physician. It looks as if the various countries of the East offered an almost inexhaustible field for women possessing medical knowledge and skill.—*Nature*.

The London Medical Record.

ARTICLE 784.

CORRADI ON THE CONTAGION OF PHTHISIS.

AT the International Congress of Hygiene of Geneva (*Il Pisani*, Disp. 4, 5, 6) Professor Corradi proposed the following conclusions.

1. The belief in the contagion of phthisis dates from the most remote antiquity, and held its ground not only in the opinion of the vulgar, but as a scientific doctrine.

2. In the second half of the last century this belief reached its apogee, probably because the disease assumed a frequency unknown in the past. In most places, the State was obliged to intervene and take measures, in the interest of the public health, with the scope of impeding the diffusion of the contagion.

3. In the first half of our century, on the contrary, the doctrine of contagion lost ground; anatomy and pathology being in the ascendant, etiology suffered.

4. In the last few years only has experimental pathology again taken up the question, endeavouring to give to the doctrine of contagion the support of experiments on the inoculation of tubercle. Further, it is believed possible to demonstrate that the poison is represented by a bacillus.

5. The problem so clearly put by experiment must be solved by clinical observation. To pathology it belongs to reconcile this doctrine with the fact of predisposition and heredity.

6. But if contagion and transmission be possible, the conditions yet remain to be determined.

7. Meanwhile, hygiene must comport itself in regard to phthisis as it would with a suspected malady, that is, one capable of being communicated or transmitted under certain circumstances.

8. Especially must it consider the conditions of cohabitation. If cohabitation be less constant and intimate there will be less risk run, and the exhalations of the sick, which, apart from any specific action, undermine the health and predispose to phthisis, will be avoided.

9. Although it is not certain that tuberculosis can be communicated in articles of food, it is nevertheless prudent to avoid the flesh and milk of phthisical animals.

10. It is necessary to exercise great care in the choice of vaccine lymph, whether from the calf or humanised.

11. The institution of special hospitals, or at least of special wards, is strongly to be recommended.

12. The results of new studies and researches, undertaken with the scope of determining the conditions and means of transmission of tuberculosis, will indicate the more special prophylactic measures it will be necessary to take.

13. Whatever opinion is professed as to the nature of phthisis pulmonalis, no one doubts the great advantage the resistance of the organism has in the struggle; and therefore one of the greatest obstacles to the diffusion of this scourge of civilisation is to be expected from the practice of hygiene, which assures the moral and physical well-being of the population.

G. D'ARCY ADAMS, M.D.

ARTICLE 785.

VASSILIEFF ON CALOMEL AND MICRO-ORGANISMS.

DR. VASSILIEFF has recently published some interesting researches into the action of calomel on the contents of the intestines.* He alleges that he has proved that this drug leaves the gastric, hepatic, and pancreatic secretions absolutely unchanged; but prevents certain processes of retrogressive metamorphosis and putrefaction, by destroying bacteria and micrococci naturally present in the alimentary canal. Hoppe-Seyl has rightly attributed the bright green colour of 'calomel stools' to the presence of unaltered bile in the feces. Under normal conditions, the colouring matter of bile is destroyed in the process of digestion; but, Dr. Vassilieff argues, calomel prevents this destruction, and the colouring material remains to give to the feces their peculiar hue under these conditions. The pancreatic secretion is peculiarly complicated, and particularly liable to very rapid decomposition, with the consequent formation of indol and allied products. Calomel entirely prevents this change, and also alters the characters of the gases evolved in the process of pancreatic digestion, especially diminishing the evolution of carbonic acid. Experiments on artificial pancreatic digestion proved that, when calomel was mixed with pancreatic juice, proteids, starch, and fats were all acted upon in the usual manner, trypsin, amylolysin, and steapsin being unaffected by the drug, but indol, long recognised as a product of decomposition, is not formed.

Dr. Vassilieff, in a further series of experiments, found that this prevention of decomposition was due to the distinctly aseptic and antiseptic properties with which calomel is endowed. He discovered that it prevented the formation of bacteria and micrococci in food removed from the intestines and freed from these micro-organisms, and that it also destroyed them where they were present. Dr. Vassilieff administered fifteen grains of calomel to a dog, in two equal doses, and killed the animal a few hours after the second dose. The contents of the intestine were collected and analysed with every precaution. No indol nor phenol could be found, but much leucin and tyrosin, generally destroyed at an early stage of digestion, were detected. This experiment appears to have been repeated more than once. Other experiments, with cheese, showed that calomel prevents butyric acid fermentation.

Dr. Vassilieff's experiments are obviously of great interest from their therapeutic, clinical, and physiological aspects. They also turn attention to the significance of the relation of micro-organisms normally present in the contents of the alimentary canal to the process of digestion, in which they actually appear to play an important part. The processes which produce indol appear to be set going by these germs, and can hardly be reckoned as morbid, nor do they go on for no purpose; and it is clear that we are not meant to keep ourselves for all our lives under a course of calomel, so that the gastric, biliary, and pancreatic juices alone may act upon the food which we eat. We hear much about the harm which some species of protophytes can do, but we should like to hear more of the good which others effect, the true use for which they are present in the animal economy. Future science

* Ueber die Wirkung des Calomel auf Gärungsprozesse und das Leben von Mikro-Organismen. *Zeitschr. für Physiol. Chemie*, 1882, Vol. vi.

may show that they are not only the chief agents in most forms of infection and decomposition, but that they are essential in more normal and constructive vital processes.

ALBAN DORAN.

ARTICLE 786.

KOCH ON PUBLICATIONS DIRECTED AGAINST THE SIGNIFICANCE OF THE BACILLUS OF TUBERCLE.

IN an article in the *Deutsche Medicinische Wochenschrift*, March 7, Dr. Koch expresses surprise that more criticism has not come from the side of pathological anatomy, and that what has been written has been chiefly from a clinical point of view. And here most of the observations have been made with so little experience in microscopic work, and so little precaution to avoid errors, that Koch would not notice them at all, were it not that they appear to receive more widespread attention than they deserve.

He begins with the American investigators, who have made some remarkable admissions. Ephraim Cutter, in the *American Medical Weekly*, considers the tubercle-bacilli to be embryonic forms of the mycoderma aceti, found already by H. Salisbury in the blood. Rollin R. Gregg considers phthisis to consist in a diminution of albumen in the blood. He then imagines that threads of fibrin are formed, which have been mistaken for bacilli. He appears to have considered microscopical investigation on his own part superfluous. Schmidt, in the *Chicago Medical Journal and Examiner* for Dec. 1882, mentions the efforts that he made to find the bacillus; but, not succeeding at first, he took it for granted that it was not to be seen at all, and that what European investigators had found were fat crystals. Formad is as clever a microscopist as Schmidt. In the *Philadelphia Medical Times* for Nov. 18, 1882, he questions the distinction in regard to staining between the bacillus of tubercle and other bacilli, suggesting the belief that he himself never managed to see the bacilli of tubercle. He has succeeded in seeing rabbits die of tubercle after the introduction of pieces of metal, glass, &c., into their bodies; and he does not seem to be aware of the investigations of Cohnheim and Salomonsen, showing that tuberculosis of the iris can be produced by nothing but inoculation with tuberculous material. He has been trying for four years to find a distinction between scrofulous and non-scrofulous tissues, and, thinking that he has now found it in the greater narrowness of the lymph-spaces in scrofulous connective tissue, he considers the doctrine of bacilli to be superfluous. Sternberg (*Medical News*, No. 41) could not find the bacilli either, and therefore considered it necessary to deny their existence.

German literature produces similar specimens. Beneke (*Die Erste Ueberwinterung auf Nordey*, Norden, 1882) denies the existence of tubercle-bacilli, because he has found what he considers to be similar bodies in an alcoholic ethereal extract of healthy blood. Koch calls to mind that in 1876 the bacilli of malignant pustule were also considered to be inorganic crystalline bodies.

Crämer (*Sitzungsberichte der Physikalisch-Medicinischen Societät zu Erlangen*, Dec. 1882) reported that he had found bacilli in the feces of twenty healthy individuals. This was soon contradicted by communications by Menche from the medical clinic at Bonn, and must be looked upon as an

error. Even if bacilli were found which stained in the same way as tubercle-bacilli, it would not be enough to prove their identity, for bacilli in lepra stain as in tubercle, but do not give the disease to animals by inoculation.

Balogh stated, in the *Wiener Med. Wochenschrift*, No. 1, 1883, that he had found bacilli in slime, but Koch has repeatedly invested the slime of the Berlin sewers with a negative result.

Schottelius (*Virchow's Arch. für Path. Anat.* Band xci. Heft 1) mentions that the inhalation of non-tubercular substances causes nodes (Knötchen) in the lungs of dogs, which are anatomically the same as those of tubercle. In the same way, a smallpox pustule ought to be regarded as identical with one produced by antimony, although the one contains an infectious material and the other does not. All such nodes in the lungs Koch would test by inoculation, and he thinks it would be best to give the name of tuberculosis to the majority, which are infectious, and to find another name for the minority which are not. Another of the objections of Schottelius is, that tubercle is various in its manifestations in different animals; but it is not more so than malignant pustule is, and, if he considers the bacilli to be an accidental coincidence in tubercle, he must, to be consistent, consider as well not only the bacilli of anthrax, but also the trichina and the ascaris to be accidents, and not essentials, of their respective diseases. Schottelius, however, is chiefly concerned in disproving the connection between "Perlsucht" in animals and human tuberculosis; and he gives as a reason, that the flesh of animals so diseased has been eaten without injury. But Koch considers it doubtful if flesh containing tubercle has really been eaten, and an occasional case in which it had been done with impunity would not disprove the danger in general.

Detweiler (*Berliner Klin. Wochenschrift*, 1883, Nos. 7 and 8) considers bacilli as an accidental accompaniment, and not as a cause of phthisis, although he found them, almost without exception, in eighty-seven phthisical patients. If he considers that all the bacilli are accidental coincidences, how is it that one disease invariably happens to be accompanied by small bacilli, another by large, and a third by micrococci?

Spina's *Studien über Tuberkulosis*, Wien, 1883, is the first work that criticises Koch's investigations in their entirety, but his researches are not made in at all the same way as Koch's. He worked with water-immersion lenses instead of oil, and did not use Abbé's illuminating apparatus; he stained his preparations in an insufficient manner, and examined his aniline preparations in glycerine instead of Canada balsam. With these and other errors in procedure, it is not surprising that his results were different from Koch's. In inoculation he was not more fortunate. He treated his blood-serum with insufficient care, and allowed it to dry up; and after the inoculation he waited until his animals died, instead of killing them at the end of three or four weeks, giving them a chance of developing tubercle from the confinement alone. After pointing out the errors in his cultivation of the bacilli, Koch remarks that the only result of the book is to detract from the scientific reputation of the author and of the institution where his researches have been made, and he hopes that the next criticisms which he has to answer will be more carefully worked out.

ALICE KER, M.D.

ARTICLE 787.

KÜSTNER ON TRANSFUSION OF ALKALINE SOLUTION OF CHLORIDE OF SODIUM IN ANÆMIA.

In the *Deutsche Medicinische Wochenschrift*, March 21, Prof. Otto Küstner publishes an article on this subject. The experiments of Golz, twenty years ago, on the mechanism of death by hæmorrhage, remained for a long time without any influence on therapeutics. Golz, and later Kronecker and Sander, pointed out that death does not result from the small quantity of blood in the body, but from that quantity being too small to circulate through the vessels, on account of the want of tone in the circulatory system. If this tone be restored by the introduction of even an indifferent fluid, the amount of blood which is thereby set in motion is sufficient to supply the needs of the system until more is formed. Von Ott was the first to give to the world his observations on the employment of a weak solution (6 per cent.) of chloride of sodium. He showed that, after its use, the number of the red blood-corpuscles, and the amount of albumen in the blood, returned to the normal in a few weeks, and that it acted in the same way as the transfusion of serum. Since the appearance of Schwarz's work, in the summer of 1881, several cases have been published of lives having been saved through the transfusion of the alkaline salt solution; and even in cases where death followed soon, there has always been a distinct improvement immediately after the injection. Besides the author, the operation has been performed by Bischoff, Kocher, Kümmel, and Schwarz.

In the following case, transfusion certainly prolonged the patient's life for some weeks. A woman 34 years of age, always delicate, but never seriously ill, became pregnant for the second time in August 1882. On January 8, 1883, severe bleeding came on suddenly, which, after lasting through the next day, was followed, on Jan. 10, by the expulsion of a recently dead fetus, the placenta being expelled before the child. Enormous flooding followed, unaffected by friction, irrigation, or even injection of iron into the uterus. The removal by the hand of a portion of the placenta found adherent to the posterior uterine wall resulted in the cessation of the hæmorrhage; but the patient was now in a condition of the most intense anæmia, passing from one fainting fit into another, and vomiting without cessation. At this stage, Prof. Küstner was called in, to find the patient conscious, and complaining of want of air and a feeling of wretchedness, the pulse 136, small and threadlike, the mucous membranes pale and cyanotic, the respiration 36, laboured. The uterus was well contracted, and no more blood was flowing.

Envelopment of the lower limbs in flannel bandages and subcutaneous injection of ether caused a marked improvement in the conditions, but two and a half hours afterwards the symptoms were such that transfusion was resolved on. The median basilic vein was exposed for the length of 4 centimètres ($1\frac{1}{2}$ inches), and the nozzle of the apparatus introduced into the central end, the peripheral side being ligatured. The patient was now so low that the whole of the operation was performed without a sign of feeling on her part; but the solution had not been flowing for more than a minute or two before she drew a deep breath, and murmured a complaint of feeling cold. When one litre had been injected, in

about ten minutes, the pulse was full and strong, the respiration quiet, and the sensorium clear. One and a half litres in all were injected, the vein ligatured, and the external wound secured by four sutures. The complaint of cold continued to be made for four or five hours; but by the end of that time the paleness of the skin had changed to a rosy hue on the face, the tongue was moist and red without any fur, and the only complaint was of hunger and weariness. On January 13, the patient having progressed very well until then, the lochia were somewhat putrid, and an attack of pelvic peritonitis came on which lasted till January 21, but from which she recovered completely, some meteorism of the abdomen alone remaining. She was also a good deal disturbed with flatulence, which, however, caused her no pain; and she had been sitting up in bed, and even occasionally in an easy chair, when on February 3 she suddenly died, with symptoms of acute peritonitis. An ulcer in the greater curvature of the stomach was the cause of death from perforation, and the meteorism and flatulence which had hastened the perforation were caused by the adhesion of one or two coils of small intestine in the pelvis, bound down by exudation. The fluid exuded into the pelvis during the preceding peritonitis was in process of being absorbed, and the genital organs were normal, the site of the placenta prævia being distinctly seen on the lower part of the uterine cavity. The brain was very anæmic. There is no doubt that the transfusion in this case saved the patient's life for a time, and would have done so altogether but for the ulcer in the stomach. Professor Küstner ends by expressing his decided preference for venous rather than arterial transfusion, in spite of Bischoff's recommendation of the arterial.

ALICE KER, M.D.

ARTICLE 788.

HILLER ON NEW MEDICINES.

In the *Deutsche Med. Wochenschr.*, Feb. 21 and 28, 1883, Dr. A. Hiller details the experience of five new medicines employed in the medical clinic of Herr Leyden in Berlin. These are: 1. Tannate of soda (natron tannicum); 2. Extract of Calabar bean; 3. Tannate of cannabin (cannabinum tannicum); 4. Acetal; and 5. Convallaria majalis.

1. *Tannate of soda* is prepared by mixing a solution of tannic acid, 5 in 170, with a concentrated solution of bicarbonate of soda to perfect saturation. The drug is better borne by the stomach than tannic acid itself, and its harsh astringent taste is easily disguised by glycerine; but Dr. Hiller has not found it so beneficial in the treatment of albuminuria as was expected from the experiments of Ribbert on animals. Its action is slight when any organic defect in the kidney is present, and it seems to be most useful in transitory attacks of albuminuria. The solution proposed by Lewin, and quoted above, has only a weak astringent action on the tongue and mucous membrane, and does not precipitate albumen in solution, from which Dr. Hiller concludes that its styptic effect will not be great.

2. *Extract of Calabar bean* has been recommended by Subbotin (*Arch. für Klin. Med.*) and others as a powerful tonic for the muscular coat of the intestines. It has been employed in Leyden's clinic in the formula of 1 decigramme ($\frac{1}{4}$ grains) of the extract to 30 grammes (1 ounce) of glycerine, of

which ten drops were given three or four times a day, and it has been found to be an energetic tonic in cases of atony of the bowels. Its effects, however, are not lasting, but pass off after the drug has been discontinued for two or three days; and in one case, after it had been employed for two days, it caused most alarming attacks of palpitation, with irregularity of the pulse, precordial anxiety, and a feeling of impending dissolution. Dr. Hiller recommends that it should be given as an intestinal tonic with great caution for only two, or at the most three, consecutive days, and with careful observation of the pupil, whose contraction gives the first sign of the commencement of tonic action. He suggests as the result of his experiments with the drug on animals, where he found that it restricted the peristaltic action of the intestines, that it might be employed with advantage in Asiatic cholera.

3. *Tannate of cannabin*, recommended by Frommüller as a safe hypnotic, free from unsatisfactory after-effects, has been found by Dr. Hiller to be most useful in cases of slight sleeplessness, when unaccompanied by pain or psychical irritation. An evening dose of half a gramme ($\frac{7}{8}$ grains) was sufficient to produce a night's sleep, and no disturbance of digestion, circulation, or respiration has been found to result from its use. It was prescribed in powder in combination with sugar.

4. *Acetal*, or, more properly, diethylacetal = $\text{CH}_3\text{CH}(\text{C}_2\text{H}_5\text{O})_2$, was highly spoken of by Von Mering (*Deutsche Med. Wöchens.*, 1882, No. 43) as a specially safe anæsthetic, acting first upon the cerebrum, then on the spinal cord, and lastly on the medulla, so that the effect on the heart would not begin until both consciousness and reflex action were abolished. As a hypnotic, Dr. Hiller has found it impracticable on account of its burning taste, and the enormous doses in which it must be taken in order to induce sleep, it being six times weaker than chloral. No unfavourable effects on pulse or respiration were found to follow its employment, but, on the other hand, the patients complained in the morning of stupefaction and weight in the head, and in one case of faintness and nausea.

5. *Convallaria majalis*, the lily of the valley, which has been used as a diuretic in Russia and France, has completely failed in the hands of Dr. Hiller in all the preparations which he has employed. He thinks his failure may be owing to some therapeutic difference in the plants belonging to different countries, and he proposes to make experiments with the Russian and French varieties, if he fail with the active principles of the German plants.

In a discussion on the paper in the Verein für innere Medizin on Feb. 5, Herr Lewin supported the claims of tannate of soda against Herr Hiller's declaration that it was weaker than tannic acid. He showed that, as tannic acid is changed in the body into tannate of soda or potash, it must have the same result to give the salt at first. He stated, in answer to Herr Steinauer, that tannin did lessen the albuminuria in Bright's disease, and that the soda salt could be borne for a longer time than the acid itself.

In the discussion on the extract of Calabar bean, it was brought out that it acts only on the unstripped muscular fibres, and has no action on the œsophagus or stomach, but chiefly on the small intestine.

The tannate of cannabin was considered not to be

so useful as was at first believed, and large doses were by all considered necessary to produce sleep, which, when produced, was not always very satisfactory.

Acetal was condemned as not suitable for use as a hypnotic, and Herr Lublinsky said he had only once succeeded in obtaining a good result from the use of convallaria majalis, while Professor Jacobson had had no success with a specimen sent direct from Paris.

ALICE KER, M.D.

ARTICLE 789.

PATELLA ON SOME ANTIPYRETIC AGENTS.

DR. VINCENZO PATELLA writes as follows in the *Gazz. Med. Ital. Prov. Venete*, April 25 and May 5, 1883.

The hopes conceived of the specific action of this or that remedy in contagious fevers vanish with clinical experience. Quinine in malarial fevers still stands alone as an example of this so-called specific action. Salicylic acid was at first thought to be specific in typhoid fever, but, as Lancereaux says, however useful it undoubtedly is, it does not enable us to shorten the normal course of the disease by a single day; so with carbolic acid, thymol, and all the other agents used, not to combat fever as fever, but to attack the cause. It was the idea of their antiseptic property which led to the use of these remedies in fevers, and nothing could appear more rational than to attack in the blood the germs of the various infections. None, however, appear to influence their course or duration, or to have the least specific action. This ought not to surprise us; attacking the poison-germs in the body after they have invaded the tissues, the plasma, and blood-corpuscles, is a very different thing from destroying by direct contact the various agents of ordinary fermentation. With carbolic acid, for example, it is found to require a solution of at least one per cent. to arrest the movements of vibriones in the blood. This is equivalent to giving a dose of 40 to 45 grammes (5x to 5xii) of phenol. And though phenol and salicylic acid destroy the germs of putrefaction, we have no proof of their effect on the so-called ferments of typhoid, scarlatina, and diphtheria. They may be without influence on these, as they are in the case of many anaerobic ferments. Administered in the various infective fevers, they exert a distinct antipyretic action. Can this be said to depend solely on their antizymotic property? Many substances—veratrin, digitalis, &c.—are certainly antipyretic without being antiseptic. The antipyretic action of antiseptics is equally exerted in fever of non-infective character—the fever of inflammation—as in simple acute pleurisy and peritonitis not of surgical origin. In spite of the mechanism of their antipyretic action being unknown, this action renders them very valuable remedies, enabling us to combat successfully the grave dangers of hyperpyrexia, cardiac paralysis, &c. In Germany, the antithermic treatment (the direct abstraction of heat by baths, &c.) has prevailed; but in the recent discussion on typhoid fever in Paris antipyretics seemed more in favour, associated or not as occasion seemed to require with antithermics. These agents are very numerous, and their value differs, not altogether as to the intensity of the remission they cause, but rather as to the way they are tolerated by the system. A perfect antipyretic should exert a

prompt, efficacious, and lasting effect, unaccompanied by local or general disturbance.

Dr. Patella compares shortly the different agents in use.

Quinine, the most used and trusted, must be given in large doses, 2 or 3 grammes or more (30 to 45 grains). The greatest reduction of temperature is after six or eight hours. The disadvantages are the large dose and slow action; it is often badly borne; it may affect the heart, and be the cause of sudden death in typhoid fever (Hardy).

Veratrin, an antipyretic and antiphlogistic, often succeeds where quinine fails, but frequently at the price of serious collapse following the sickness which the remedy causes even in small doses.

Of *Digitalis*, the infusion is preferable (Gubler) in inflammatory fevers (Traube), and typhoid fever (Wunderlich). It is often dangerous, especially with the quick empty pulse of cardiac weakness.

Salicin acts quickly, and is well borne. The dose is 3 to 5 grammes. Senator has given with advantage as much as 10 or 12 grammes in twenty-four hours.

Carbolic Acid, in sufficient dose, causes gastric catarrh. It is given by the rectum, 1 or 2 grammes in 200 of water in two or three enemata in the twenty-four hours. Dujardin-Beaumez says it is very efficacious in typhoid fever, but always dangerous. Convalescence is prolonged, and there are often broncho-pulmonary complications. Its antipyretic action is well marked, but always dangerous.

Salicylic Acid is preferable to quinine in infectious and inflammatory fever. Its effect is prompt and lasting, but it is often badly tolerated, causing vomiting, pyrosis, head-symptoms, and collapse.

Thymol is good, but may cause pyrosis and collapse, which is not dangerous, and may be avoided by divided doses, two or three grammes in two or three hours. It does not depress the heart as much as salicylic acid. The temperature is markedly lowered, the respiration and pulse diminished.

Resorcin is well borne by the stomach; it may cause giddiness, redness of the face, quickened respiration, quick and irregular pulse. It is less active in fever not having tendency to remission, but even in pneumonia it notably reduces the temperature. The dose is 1.5 to 2 grammes in 130 of water in two hours. It is antipyretic in all pyrexias, even in the obstinate pyrexia of some cases of phthisis. Better than salicylic acid, it does not seem to be cumulative, and may be given in large doses several days in succession.

Cairina and *Cairolina* are chinoline derivations (Fischer and Rinige, of Munich). Hydrochlorate of cairina is a grey powder, soluble in water, with aromatic taste. The dose is 30 to 50 centigrammes every hour or hour and a half. Its antipyretic action is displayed in all febrile diseases. Filehne used it with great success in rheumatic fever, septicæmia, typhoid fever, phthisis, and pneumonia. Pneumonia, which more than any other disease resists antipyretics, may run its whole course without elevation of temperature under the influence of cairina, as happened to a patient of Filehne's. The fall of temperature is rapid and great, and attended by sweating; the temperature soon rises again, with shivers; and to prevent this it is necessary to continue the drug in small doses (25 centigrammes) every three-quarters of an hour until the original temperature is reached. Filehne and Hallopeau consider these by far the best of all antipyretics.

In these agents we have valuable remedies for the symptomatic treatment of fever, and which, alone or in combination with antithermic treatment, enable us to combat the dangers of hyperpyrexia.

G. D'ARCY ADAMS, M.D.

ARTICLE 790.

HOROVITZ ON THE TREATMENT OF SEVERE CATARRHAL CYSTITIS BY CYSTOTOMY.

DR. HOROVITZ, of Vienna (*Wiener Med. Wochens.*, Nos. 13 and 14), remarks on the changes that have taken place in respect to operations on the bladder. At one time lithotomy was the only operation for the removal of stone or foreign bodies from the bladder. Lithotripsy has to a great extent replaced it in these cases, and cystotomy is now widening the range of its applicability. He then describes cases of cystitis, which resist all treatment, whether medicinal or instrumental, and which, unless boldly taken in hand, lead on to fatal nephritis and pyelitis.

The urine in these cases varies in colour, from light yellow to dark red-brown, is alkaline in reaction, with ammoniacal or fœtid smell, of high specific gravity, with thick slimy deposit of mucus, pus, blood-corpuscles, epithelial cells, with crystals of triple phosphates and urate of ammonia, and large quantities of bacteria. In cases in which the kidneys are already involved, casts are to be found. The patient suffers extremely from great pain over the bladder and along the penis, from constant straining and consequent loss of sleep, and all catheterisation is attended with great agony. His health is completely destroyed, by loss of sleep and appetite, by constant drain of albumen, and the accompanying febrility. The author maintains that a bladder in this condition (cystitis of the third degree, according to Dittel), resembles and must be treated like an abscess cavity, which discharges by a long and tortuous sinus, and is constantly bathed by an irritating and decomposed secretion. The urethra, even if healthy, is insufficient for the discharge of the thickened secretion, and this imperfect drainage necessarily aggravates the diseased walls of the bladder. There is also generally a loss of contractile power of the bladder, and not unfrequently a sacculated condition of that viscus, both of which also tend to retention of the secretion. In such cases, the only operation likely to be of any benefit is perineal section with free drainage.

In 1803 Bouchardat, and in 1855 Fergusson, performed cystotomy for relief of cystitis, but these cases were not published.

In 1867 Parker, of America, published an account of a case which he treated in this way in 1851.

The following is a list of all the cases published up to now:—

	Collected	Cured.	Benefited.	Uncured.	Died.
Weir	47 cases	23	7	4	13
Post	published 1	1	—	—	—
Brass	" 1	—	—	—	1
Verneuil	" 2	1	—	—	1
Harrison	" 2	1	—	—	—
Thompson	" 2	2	—	—	—
Dittel	" 3	2	—	—	1

Total . . . 58 . . . 30 . . . 7 . . . 4 . . . 16
Thus of 58 cases, 30, or rather more than 50 per cent., were cured, while 16, or 30 per cent., died; of

these, however, 15 suffered from deep-seated kidney mischief, which in all probability existed before the operation—that is to say, the operation was performed too late. The author insists on the necessity of careful examination of the kidneys by palpation, percussion, and analysis of the urine before deciding on an operation.

In 34 cases, lateral section was performed; in 5, bilateral section; in 10, median section; in 5, urethrotomy; in 2, prerectal section. Sir H. Thompson and Professor von Dittel both consider that external urethrotomy affords quite sufficient drainage, and is less liable to secondary hæmorrhage. The author considers that the condition termed by the English 'irritable bladder' is not a fit case for the operation, as the symptoms depend, not on an abnormal condition of the bladder, but on some disease of the kidney or urethra.

He finally describes five cases of Dittel's, of which two recovered, and three died.

HERBERT MILTON.

ARTICLE 791.

FÉRE' ON A CASE OF OPHTHALMIC MIGRAINE CONSTANTLY RECURRING AND FOLLOWED BY DEATH.

IN the *Revue de Méd.* for March M. Fére' relates the case of a barrister who was afflicted with ophthalmic migraine dating back to adolescence, and which was accompanied in the early stages by slight troubles of speech. At the age of fifty-three he had repeated attacks, followed by permanent aphasia and right brachial and facial hemiplegia; then convulsions at first localised, subsequently becoming general; and ultimately an apoplectic attack ending in death.

His early manifestations began with troubles of sight and tremulous zigzags, luminous or obscure, lasting at times a whole day. Sometimes there was an obscuration of sight, either as right hemianopsia or else obscuring the whole visual field. Retinal images at times remained very persistent. Later he had headache, localised at first on the left frontal eminence, gradually extending all over the head, but always predominating at that point, and ending in copious bilious vomiting. These attacks were induced by the slightest cause, and invariably followed travelling.

This condition of affairs appears to have continued until October 1882, when he was suddenly seized with partial paralysis of the *right* hand, accompanied by slight embarrassment of speech. These symptoms not improving, he went, in Jan. 1883, to Paris to see M. Charcot; and when there the zigzags returned, and were shortly followed by increased trouble of speech, together with stiffness and pricking in the *left* side of the mouth, and slightly at the tips of the fingers of the *left* hand. This was followed by a suffocative attack, with cyanosis, apparent immobility of the larynx and thorax, superficial and rapid respiration, and difficulty of deglutition. The attack passed off, leaving numbness of the left hand and of the lips on the left side.

A few days later, a fresh attack occurred, in which the access of migraine with visual troubles was accompanied with stiffness of the left arm and side of the face, and complete loss of articulation, but without loss of consciousness. Then the hand began to twitch, and the left upper limb raised itself by

leaps, while the left side of the face began to grimace. This was followed by convulsive movements of the left lower extremity. These symptoms passed away for a short time, but on the next day he became suddenly insensible, the face and eyes twisted to the right, the displacement returning after correction; the right forearm and hand were strongly flexed, the right lower limb rigidly extended. The left cheek was relaxed; the facial deviation, due to paralysis of the right side, being nearly corrected. These effects passed off, but the patient succumbed to a further attack the same evening.

In respect to this case, M. Fére' points out that, while this succession of phenomena has not hitherto been recorded in connection with ophthalmic migraine, the symptoms which terminated the case render it likely that in similar cases it has not been possible to trace the antecedents with equal success. He argues that a case of ophthalmic migraine ought always to suggest the possibility of grave lesions, which render it indispensable to endeavour to discover the cause. 'In migraine there exists a constriction, transitory at first, of the vessels under the influence of mischief in the sympathetic nervous system; little by little this constriction becomes permanent, and determines a thrombosis which causes the death of the tissues comprised in the vascular region affected.' 'In a first attack an aphasia is produced followed by a permanent affection of the speech, with partial paralysis of the face and of the hand on the right side. These troubles, coinciding with a left frontal cephalalgia, mark a lesion seated in the left cerebral hemisphere. The limitation of the paralysis, and the character of the troubles of speech and of the paralysis, which was partial and variable from moment to moment, allow us to assert the existence of a cortical lesion comprising the posterior part of the third frontal convolution and the neighbouring part of the motor tract. The simultaneous existence of sensory troubles does not contradict this idea; for the facts published by MM. Tripiér and Petrina show that often enough motor paralysees of cortical origin are associated with troubles of sensibility more or less marked: aphasia is often enough found so associated, and troubles of sensibility in these cases may affect the special senses, notably vision.

'In a second series of phenomena it is the *right* side of the body which is affected: there are at first numbness and pricking in the fingers and lips, then supervene convulsions and paralysis. These troubles indicate further cerebral mischief, this time situated on the right side, but yet, in all probability, affecting the cortical matter, and in the same neighbourhood.

'In short, the repetition of a purely functional disorder through a long number of years has ended by determining a bilateral and symmetrical lesion.'

K. W. MILLICAN.

ARTICLE 792.

BUSCH ON EXTIRPATION OF THE RECTUM, WITH THE FORMATION OF A MUSCULO-CUTANEOUS FLAP.

PROF. BUSCH refers (*Berliner Klin. Wochenschr.*, April 9) to an operation described by Hüter, in the year 1872, in which the rectum was extirpated, union between the mucous membrane and the external sphincter and integuments having been secured, so that the distressing occurrence of alvine

incontinence was avoided. Only one or two instances of this operation have since been recorded, and in those cancer was the disease to be removed. It is, however, Prof. Busch remarks, in syphilitic stricture of the rectum that the operation is most eligible. This malady is one of the most painful and intractable to ordinary modes of treatment, such as dilatation by bougies or by forcible distension under chloroform, under which treatment the subsequent pain and suffering are most intense, and, when an incision is made, is not seldom attended with severe hæmorrhage and fecal infiltration of the adjacent tissues, and consequent phlegmonous inflammation. Should the patient escape these dangers, he is still exposed to a recurrence of the same morbid conditions. For these reasons Prof. Busch operates in such cases, in a manner differing in several points from Huter's description of his mode of proceeding, and relates a case in illustration.

A woman, aged 35, who had suffered from nodes on her elbows, which had, however, disappeared under the use of iodide of potassium, began to experience severe pain in defecation, the feces being evacuated in small quantities, and with difficulty. Examination discovered several polypoid excrescences within the anus; the mucous membrane to the extent of three centimètres was thickened and raised into ridges forming a close hard stricture, admitting only the end of a finger to the extent of about two and a half centimètres, beyond which healthy mucous membrane could be felt. After careful preparation of the patient, the operation was undertaken on Sept. 8, 1882. A transverse incision divided the *raphé* in the midst between the anus and the entrance to the vagina, and, curving on each side towards the sacrum, enclosed the anus in a semi-circular incision. By division of the muscular fibres of the constrictor vaginae and constrictor ani, the anterior surface of the rectum was reached. The septum between the anterior wall of the rectum and posterior wall of the vagina had now to be dealt with without opening into either of those cavities; the firm connective tissue could be divided only by the knife, a separation which it was difficult to effect. The posterior wall of the vagina was pressed upwards by an assistant, while Dr. Busch with his left hand pressed backwards the anterior wall of the rectum. Thus the connective tissue was put on the stretch, and the finger of the operator was made aware directly the knife came too near either wall. Moreover, the division was attended with profuse bleeding; every incision divided arteries, some of considerable size, so that altogether fifty catgut ligatures were used. The division, however, was finally effected, and above the stricture soft connective tissue could be felt around the rectum. The rectum was then divided with the scissors to the extent of half its lumen, and its edges provisionally secured to the skin by three strong silk ligatures to prevent its being drawn inwards. The division of the intestine was then completed, and the posterior surface of the stricture was reached from above. The stricture was readily detached from the loose connective tissue which filled the hollow of the sacrum, and the intestine was again divided at about the distance of two centimètres from the anus, the strictured portion, in length about five centimètres, being then shelled out. The lumen of the rectum was more than half closed by the existing sutures of the mucous membrane; the remaining portion of

the external part was followed up where it was most easily accessible from the opening of the wound (incision), whilst the contact of the mucous membrane was effected in the slowest possible manner. About twenty sutures were inserted; the perineal wound was again slightly opened; the effused blood readily escaped, and some iodoform was blown in. A drainage-tube was affixed, on both sides, to the nates, and the wound closed by silk ligatures which brought the flaps into their normal position. The anus remained somewhat open, through the division of the motor nerves. The finger inserted could feel the annular form of the sutured intestine, but not any trace of constriction.

The patient was much exhausted by the length of the operation, and suffered for some hours from vomiting. The first free fecal evacuation was passed on September 12. Some portions of feces passed behind the sutures. A few days afterwards, a feculent purulent discharge appeared at the wound, and escaped also from the vagina, in which a small perforation was discovered. The healing of the wound was retarded by diarrhoea. On January 16 of this year, the patient's condition was satisfactory. There was a slight mucous discharge from the vagina, but not of a blennorrhagic character. The wound in the vagina, and the perineal incision, had cicatrised. The sphincter ani had perfectly recovered its power. The finger passed into the rectum could detect a slight constriction, through which, however, the whole index finger could be passed without causing pain. The evacuation of even solid feces is easily effected.

Professor Busch adds the mention of another case of stricture of the rectum in which he had recourse to a similar operation, which, he adds, so far as he knows, has not been employed by any surgeon previously. W. B. KESTIVEN, M.D.

ARTICLE 793.

PERRIER ON SCOTT'S APPARATUS FOR THE TREATMENT OF WHITE SWELLING.

DR. PERRIER (*Thèse de Paris*, 1882), writing on this subject, says that in 1828 John Scott made known for the treatment of white swelling a form of dressing by plaster, obtained by him from his father. Notwithstanding the oblivion into which this proceeding fell after the death of Scott, he seemed to have obtained very excellent results from it. In 1879 M. Suchard recalled attention to Scott's apparatus, which he presented to the Société de Chirurgie after having slightly modernised it. A committee of three surgeons was appointed to judge of the results obtained. The trials made at the Children's Hospital in M. de St. Germain's wards gave results which were the more important, as cases in which the affection was of the most unfavourable nature were purposely chosen. M. Suchard applies his apparatus in the following manner. He begins by very carefully cleansing the segment of the diseased limb by rubbing it with a sponge or coarse cloth steeped in camphorated alcohol, so as to obtain a lively redness. He afterwards covers the whole of the region with a piece of lint covered with a thick layer of ointment, composed of equal parts of camphorated unguentum hydrargyri and soap-cerate. A considerable quantity of the ointment is used for the knee; as much as 250 grammes (more than half a pound) is required. It is applied direct to the

skin, the lint being outside. This plaster is kept on the joint by means of a layer of imbricated strips of diachylon plaster, in the same way as for ulcers of the leg. Over these bands M. Suchard places valves of flexible but resistant leather spread on their inner surface with soap-cerate, and extending above and below beyond the subjacent pieces of the apparatus. A linen bandage applied outside keeps all these pieces accurately moulded over the joint and in perfect immobility. According to the degree of suppuration, the dressing is renewed every week or fortnight.

Dr. Cazin, chief physician of the hospital at Berck-sur-Mer, has, in his turn, modified the preceding apparatus. The washing and rubbing of the affected part are performed as above. The application of the mercurial ointment according to Dr. Suchard's method may be replaced by a copious application of vaseline spread on a layer of carded cotton, which produces the same effect. This layer of cotton is kept in place by imbricated bands of diachylon. Over this covering a fresh layer of cotton-wadding is rolled, which again is covered by a silicated bandage. With this modification, the little patients at Berck-sur-Mer run about and play in the hospital and on the beach, which is a great advantage to them.

The dressing is renewed on an average every fortnight; but the time varies according to the nature and severity of the tumour. For the same reason, the entire duration of the treatment cannot be stated.

There is still one important detail. When the limb is removed from the apparatus, it is often the seat of intense erythema. It is then sufficient to wash the skin, to powder it, and to wrap it up in a simple linen bandage during two or three days. The dressing is again applied according to the ordinary rules. This apparatus has given most remarkable results, and deserves to be very carefully considered.

ARTICLE 794.

HUMBERT ON ULCERATION OF ARTERIES IN CONTACT WITH PUS.

M. HUMBERT, of Paris, reported to the Société de Chirurgie in October of last year two cases of ulceration of the popliteal artery occurring in the course of acute osteomyelitis of the femur. In his remarks on these two cases (*Bulletin et Mémoires de la Société de Chirurgie de Paris*, No. 9, 1883), he points out that non-traumatic perforation of arteries usually succeeds the invasion, and progressive destruction of their coats, by cancerous or syphilitic neoplasms. It is less frequently caused through denudation consequent on the application of a ligature, or on removal of contiguous and adherent tumours; or by erosion due to the contact of sharp pieces of bone, sequestra, or foreign bodies. It is exceptional to observe arterial ulceration and perforation in connection with acute or chronic suppuration. The few recorded instances of perforation under the last-named condition were collected in 1874 by M. Le Dentu. Seven other cases have since been recorded; one by Bard, of Lyons, of ulceration of the popliteal complicating suppurative disease of the knee; two by Roth, of Bale, of arterial perforation during scarlatina; one case of ulceration of the carotid following phlegmon of the neck; one of a suppurating thoracic gland opening into both the œsophagus and

the aorta; and, finally, the two cases reported by M. Humbert.

The subject of the first case was a lad, aged 13, who, in September 1879, came under the author's notice with recent osteomyelitis of the lower extremity of the right femur, attended with fever, and marked by swelling and much tenderness in the affected region. On the sixth day of treatment the patient passed suddenly into a typhoid condition, and, at the same time, the swelling in the thigh and popliteal region increased considerably. An opening made into the tumour, which was thought to be a collection of pus, gave exit only to blood, which continued to flow in a jet until this was arrested by pressure. Two days later profuse hæmorrhage occurred; and before the patient could be seen by M. Humbert, it was too late to have recourse to deligation of the artery or amputation. The limb had become much swollen and gangrenous, and the patient was in a condition of extreme prostration. Death followed in the course of a few hours. At the necropsy the periosteum of the inferior third of the femur was found to have been thickened and separated from the bone by a mixture of blood and pus. The denuded osseous surface was rough, and felt like a rasp. The periosteum of the posterior intercondyloid space had been destroyed, and here the bone was quite bare. Corresponding to this bare surface there was, on the anterior wall of the popliteal artery, a perforation about one centimètre in length, running parallel to the long axis of the vessel. The margins of this perforation were very irregular. The inner surface of the artery was smooth, and in a perfectly normal condition. The popliteal space was filled by coagulated blood, mixed with a small quantity of pus.

The second case was observed in July 1880. The patient was a male, aged 20, who came under the care of M. Humbert, with an extensive fluctuating swelling at the lower and internal part of the left thigh, which had followed a supposed attack of acute articular rheumatism. An incision made into this swelling, which was taken for an abscess, gave vent to about half a pint of blood, partly fluid, and partly coagulated. The finger, introduced through the incision, passed into a large cavity, at the bottom of which could be felt the anterior surface and the inner border of the femur everywhere covered by periosteum. The patient recovered with a stiff knee, after prolonged suppuration. No bare bone could be felt in this case, but it is thought that more advanced lesions might have been found if the posterior surfaces of the femur and tibia in the popliteal space could have been explored. It is impossible to state what was the vessel that had been opened. It must have been one of little importance, as there was no subsequent hæmorrhage, and the circulation in the limb was not interfered with.

Cases of arterial ulceration following suppuration in the same region are so rare, and seem to occur under such varied conditions, that their pathogenic interpretation is rendered extremely difficult. The arterial lesion cannot be attributed to the action of pus. In these two cases, though suppuration had preceded the perforation, the quantity of pus that had been formed was very small. Moreover, it is well known that pus respects vessels, even in collections of long standing. With regard to the part played by the perforated artery itself, there may be favourable anatomical conditions, such as were pointed out by M. le Dentu in the case of the internal carotid, and such as may be attributed to the popliteal, in the close

relation of this vessel to the femur and the traction to which it is exposed during movements of the leg. Then there may be lesions of the vascular walls, such as granulo-fatty degeneration or atheroma, causing friability or ulceration of the coats, and diminution of their physiological resistance to the pressure of the blood-stream. Together with these intrinsic and rare causes, another element that has to be considered is the action of the neighbouring parts. This action is purely mechanical. Thus the rubbing of a sequestrum, the contact of a denuded osseous surface, may at length denude and even erode more or less deeply the arterial walls. Finally, there is a third variety of conditions favourable to the production of arterial ulceration. Those which depend on the general condition of the patient, M. Humbert states, are probably the most important. The study of that form of secondary hæmorrhage, in which a vessel ulcerates and opens above a ligature, demonstrates that denudation of the vessel and surrounding suppuration are not always solely responsible, but that with those local causes there is associated a general influence, the action of which cannot be questioned. In the majority of instances of spontaneous perforation, the artery is opened at a weak point, but the ulcerative action is powerfully aided by a remote cause. In chronic affections we have general failure of nutrition, exhaustion, hectic, and the visceral lesions of frequent occurrence after prolonged suppuration; and in acute affections some serious general condition of septic poisoning. In many cases the arterial perforation occurred during the course of scarlatina, and, like diffused phlegmon and acute osteomyelitis, may be regarded as a septic affection.

In conclusion, M. Humbert states that, when we seek to explain these exceptional and obscure cases of spontaneous arterial perforation, we find it difficult to assign a single cause; and assume that the interpretation of this lesion is to be rendered in the readiest and most rational way, by invoking the concurrence of many both contemporaneous and successive causes, among which the general condition of the patient ought always to be taken into serious consideration.

W. JOHNSON SMITH.

ARTICLE 795.

HAYEM AND GIRAudeau ON THE LESIONS OF THE MEDULLA OBLONGATA CONSEQUENT ON CHRONIC MENINGITIS.

In a paper by MM. Hayem and Giraudeau in the *Revue de Médecine* for March, after referring to the three forms of chronic meningitis, viz., that connected with chronic diffuse encephalitis, that consequent upon acute meningitis, and that which is chronic from the first, occurring principally in syphilitic, tuberculous, and alcoholic subjects, the authors state that the latter form may remain latent through life, may give rise to obscure symptoms as headache, vertigo, hebetude, loss of consciousness, &c., or may in addition originate paralysis of one or more cranial nerves, the cause of which is due to their compression by inflammatory exudation. When the exudation presently disappears, the paralysis is temporary; but, when it remains, atrophy ensues, the paralysis being then permanent. Two cases of the latter class, occurring at St. Antoine, have given the authors an opportunity of studying the lesions of the medulla.

The first case was that of a woman who died in hospital of puerperal peritonitis. She had, however, besides, a complete left facial hemiplegia dating from infancy, and presenting all the ordinary signs—drooping of the mouth, disappearance of the superficial markings, puffing of the affected cheek on respiration, and internal strabismus due to paralysis of the left sixth nerve. The chief cranial lesions were thickening of the cranial bones and disappearance of the diploë, adhesion of the dura mater to the bone, the part lining the vault being covered by an osseous layer, disappearing towards the base, but returning at the orbital fossæ and the petrous portion of the temporal bone. The sixth and seventh nerves were atrophied on the left side, as were also their roots, both being pearly and resistant like fibrous tissue. The process of dura mater surrounding the facial nerve at its entry into the internal auditory meatus was also covered by an osseous layer, compressing the nerve and causing its atrophy; there was the same condition with the sixth nerve as it enters the cavernous sinus. The medulla and pons Varolii were atrophied on their left halves; and this atrophy was found, on microscopic examination, to be due to atrophy of the roots of the left sixth and seventh nerves (especially the former), which were only represented by greenish yellow streaks.

After remarking upon the exceptional character of the 'external osseous pachymeningitis,' the internal form being that ordinarily found, the authors relate the second case, in which the patient also died of peritonitis. In this case, the subject of alcoholism, there was marked atrophy of the right half of the tongue, the mucous membrane hanging in loose folds. There was no facial paralysis in this case, and the sensibility of the affected side was intact; but no lateral movements could be effected on that side, and there was marked deviation on protrusion. The lesions here consisted of highly vascular new membranes on the inner surface of the dura mater, adhesion, thickening, and great vascularity of the arachnoid and pia mater on the convexity of the brain, disappearing towards the base, but reappearing at the pons and medulla.

The medulla was encased in a fibrous sheath, which was prolonged upon the right hypoglossal as far as the anterior condyloid foramen. This nerve was only of one-third the size of the left, and, as well as its roots, was resisting and pearly white. The muscles of the tongue on the affected side had a yellow tinge, and the line of demarcation between the sound and affected halves was well marked on transverse section. The medulla oblongata, on transverse section through the olivary processes, was of smaller calibre on the right than on the left side, especially in the plane of the fourth ventricle. The roots of the right hypoglossal nerve were scarcely visible, and its nucleus was represented by a few small deformed nerve-cells. The authors point out that the lesions of the medulla consisted in an atrophy of the half corresponding with the atrophied nerves, and more marked in the neighbourhood of the fourth ventricle than at the level of the anterior pyramids. This was due to thinning of the fibres of origin of the compressed nerves, and a diminution of the number of cells in their nuclei. Those which had escaped destruction were small, and choked by the bundles of connective tissue which replaced their nuclei of origin. They compare this lesion with that found in the spinal cord when a limb has been

amputated, or in the cord of animals whose sciatic nerve has been resected. The essential difference between the lesions described and those of primary bulbar paralysis, consists in the facts that in the latter the affection commences in the nuclei of origin of the medullary nerves, progresses from below upwards, and recoils secondarily on the nerves so as to cause atrophy; and later on, upon the muscles, ultimately originating fatty infiltration, as Duchenne asserts; while in the former it begins by compression of the nerve, proceeds to the medulla, and there localises itself at the level of the nuclear origin of the nerve, and on the other hand in the muscles dependent thereon.

The practical point is this, that, excepting nerves of vital importance, as the pneumogastric, nervous atrophy of mechanical origin entails nothing more than paralysis of some muscular groups without serious disturbance of the general health.

K. W. MILLICAN.

ARTICLE 796.

LOEWENBERG ON DEVIATIONS OF THE NASAL SEPTUM, ESPECIALLY IN REGARD TO THE DIFFICULTIES WHICH THEY OCCASION IN CATHETERISATION OF THE EUSTACHIAN TUBE.

THIS important subject has been recently studied by Dr. B. Loewenberg, and the results of his researches are given in the *Archives of Otolaryngology*, Vol. xii., No. 1, March 1883. In investigating the nature and seat of the nasal obstruction in cases where difficulty is experienced in passing the Eustachian catheter, the author found that this was seated in the anterior and lower part of the nasal fossa, and was *alone* due to protuberances or spurs on the septum, and not, as might *à priori* be supposed, to swellings on the turbinated bones or to mucous polypi. This led him to make extensive anatomico-pathological researches on the deviations of the nasal septum, the results of which are given at length in this paper. In only one case out of seven did the author find a septum absolutely straight in all its parts. He divides the deviations as follows; 1, horizontal deviations—*a*, superior, and *b*, inferior; and 2, vertical deviations.

The superior horizontal deviation affects the upper part of the septum, and especially the perpendicular plate of the ethmoid bone. Its convexity is oftener towards the right than towards the left. The inferior horizontal deviation occurs at the junction of the osseous with the cartilaginous septum, or, more precisely, 'at the junction of the inferior posterior border of the cartilage of the septum, posteriorly, with the anterior border of the vomer, and anteriorly with the ridge that surmounts the line of junction of the palatine apophyses of the superior maxillaries.' This deviation proceeds from the fact that the bony part on the one hand and the cartilaginous part on the other are not in the same vertical plane, but join under a dihedral angle projecting toward one side. Its convexity is more common to the left than to the right. Commencing in front as a protuberance or 'spur,' this deviation is often seen running somewhat upwards as it is traced backwards—following, in fact, the osseo-cartilaginous suture. The inferior deviation usually forms the reverse of the superior: sometimes, however, there is a kind of torsion of the septum from top to bottom.

The vertical deviations are folds which extend from

top to bottom along the septum narium in its front part, and consequently pertain especially to the cartilage of the septum. They present a convexity toward one side and concavity toward the other, and are often due to traumatic causes.

The author considers the part which deviations of the septum play in the treatment of, *a*, simple chronic coryza; *b*, mucous polypi of the nasal fossae; and, *c*, epistaxis; also *d*, in the use of the nasal douche; and, *e*, in catheterisation of the Eustachian tube. He is of opinion that, speaking generally, the importance of deviations of the septum has been overrated as regards the injurious influence which they exercise on the functions of the nasal fossae, whereas enough consideration is not given to the impediments they often occasion in the diagnosis and treatment of affections of these cavities. He calls special attention to the danger of injecting liquid into one nostril, if the opposite one be much narrowed by deflection of the septum. He prefers the use of a syringe to that of a siphon for the nasal douche, and in cases of considerable deviation injects only by the narrowed side.

The impediments to the passage of the catheter through the nostril are, as mentioned above, usually the protuberances on the septum, and sometimes the vertical deviations of that bone. In order to pass these with as little discomfort as possible to the patient, the author employs catheterisation combined with anterior rhinoscopy. For this purpose he recommends a funnel-shaped metal speculum, with a slit down one side sufficiently wide to allow the passage of a catheter. If, on inspection of the nostril, a protuberance be seen on the septum, the speculum is kept in position with the slit downwards, and, the field being illuminated by the head-reflector, the catheter, guided by sight, is carefully passed along the floor of the nose, it being necessary to turn the beak of the instrument outwards until the protuberance is passed. When this is accomplished, the speculum is turned round, so that the slit becomes uppermost, and is allowed to drop gently off. The author alleges that by this method he has been able to catheterise successfully and without suffering to the patient, under circumstances where the deviation of the septum made the operation impossible, or, at any rate, extremely painful by other methods. Inspection before catheterisation also often shows that in a given case an ordinary catheter would not have room to pass, and that the use of an extra thin one is necessary. The author prefers these of a particular pattern, *i.e.* with a beak of only $7\frac{1}{2}$ mm. in length, and bent at an exact right angle to the stem. Finally, he insists on the importance of examination of the anterior nares in aural affections, and lays down as a principle the necessity of exploring the nasal fossae of every person requiring our attention for an affection of the ear. Some woodcuts illustrating the author's speculum and sections of the cartilaginous part of the nose accompany the paper. [The author speaks of the movements of deglutition being seen in cases of abnormal size of the nasal fossae (ozena). In our experience, an abnormal size of the nasal fossae is by no means necessary for this phenomenon to be observed, for, with a good light (such as reflected sunlight or a strong artificial light) it may be seen in ordinary cases, and forms, as we have pointed out (the *Lancet*, Jan. 27, 1883), a good test of the permeability of the lower part of the nasal cavity.—*Rep.*]

E. CRESSWELL BABER, M.B.

ARTICLE 797.

JURGENSEN ON THE TREATMENT OF CROUPOUS PNEUMONIA.

IN a dissertation on the treatment of croupous pneumonia (*Wiener Med. Blätter*, Feb. 22 and March 11) Dr. Jürgensen speaks first of the treatment of the high temperature. He considers cold baths to be a necessity when the temperature exceeds 41°C . (105.8°F .), unless the heart should be very weak, when they may induce collapse. Even if the temperature be under 40°C . (104°F .) they should be employed, if cerebral or cardiac symptoms be present. Baths, or some other antipyretic treatment, may be advantageously employed as a prophylactic in lighter cases. He suggests that cold applied to the body may limit the development of the micro-organisms, but he acknowledges that the course of pneumonia is not always checked by the most energetic withdrawal of warmth. The cold pack is recommended as an adjunct to baths in severe cases of pneumonia, and as a substitute for them in lighter cases.

Antipyretic drugs may be supposed to act directly on the micro-organisms or on their seat, rendering their further development impossible. No specific for pneumonia has yet been found. Iodine, recommended by Schwarz, has not been tried in a sufficient number of cases to prove its efficiency. Salicylic acid is not suitable for use in pneumonia, as it lowers the temperature too quickly and too much. Quinine, on the other hand, is very suitable; it lowers the temperature sufficiently and permanently, and may be employed in large doses, as the short duration of the illness prevents any fear of derangement of the digestion. It should not, however, be employed for a great length of time to the exclusion of baths.

Wine is demanded in pneumonia, and children may take from half a litre to a litre of light red Bordeaux, adults double that amount. Fever patients can take with impunity an amount which would intoxicate a healthy individual. The wine contributes a certain amount of fluid, which is much needed by the tissues; and the alcohol, while not increasing the bodily warmth, contributes an elasticity without the necessity on the part of the body to assimilate food. The objection that the use of wine from the first will so accustom the patient to it that it will not be useful as a stimulant, is met by the statement that such an administration provides against exhaustion and so obviates the necessity for stimulants, which, if they should be wanted, may be found in the strong wines, champagne, and brandy, or in the subcutaneous injection of camphor or ether. There is no difficulty in discontinuing the wine when it is no longer needed, but weakness of the heart may necessitate its continuance, or even increase, for a few days after defervescence.

Sufficient nourishment is very necessary, and Dr. Jürgensen has found that fever patients treated by baths can take plenty of nitrogenous food. Milk is most useful at first, and may be given up to several litres a day, one to two ounces of cognac being mixed with each litre. Raw meat minced, with bread and butter, and even more complicated dishes, are not to be forbidden. This treatment is adopted with the aim of keeping the patient alive by rendering the heart capable of performing its work.

The danger of collapse after the use of baths is not to be feared even in weak children, as the alter-

native is to abandon the child to the action of the disease if the fever continue in spite of the use of quinine. Baths may even be beneficial in weakness of the heart; for, when a relaxed state of the vessels, and of the muscles generally, widens the bed of the blood-stream, the stimulation of the bath narrows the peripheral arteries, giving greater resistance, and so enables more blood to flow along other channels. When cold baths have caused collapse, it has been from insufficient watchfulness on the part of the medical attendant, especially as regards the time of crisis, when the temperature falls of itself, and when baths in addition would do harm. The increase in the temperature of the body stimulates the heart, and when, by cold baths, this stimulant is taken away, another must be substituted for it. The crisis may come quite unexpectedly and without warning; and when quinine is employed as an antipyretic this crisis may occur during its time of action, which is from six to seven hours. In such a case baths are much safer, as their action lasts for a much shorter time. It is a good rule to employ a cardiac stimulant regularly on the day of crisis.

Digitalis can be employed in pneumonia only as a regulator of the heart's action. It is supposed to act by prolonging the diastole, and so increasing the period of rest of the heart, and enabling it to be better nourished. But in pneumonia the rapidity of the pulse is often in direct relation to the increased respiration, and to interfere with the one without affecting the other is to disturb the equilibrium between them. Only in cases of irregular and intermittent pulse is digitalin sometimes of service.

Inhalations of turpentine are useful in treatment intended for the lungs, especially in cases of fetid expectoration.

Alice Ker, M.D.

ARTICLE 798.

BEUSTER ON MASSAGE.

DR. BEUSTER, of Berlin, read a paper on this subject at a meeting of the Verein für innere Medizin in Berlin, on Jan. 8 (*Deutsche Med. Wochenschr.*, March 12 and 28). It is desirable to consider the advantages of this form of treatment on nervous diseases as well as on others, in order to fix the limit of its operation. The treatment which is now being judged by the medical world is the oldest of all, and has been employed by men in every country and in every age. It was known to the Asclepiades, to Hippocrates and Galen, and the Greeks practised it is the fourth century B.C. In Rome, in the time of Nero and Trajan, massage formed part of the programme carried out in the tepidarium of the public baths. The Brahmins in India practised it under the name of shampooing, and Alexander the Great, when he was in India, allowed those of his soldiers who had been bitten by serpents to be so treated by the priests. It was brought to Germany by the crusaders from Syria and Palestine, but it soon passed out of the physicians' hands into those of the people, and was employed merely as a pleasurable sensation. Travellers relate stories of its extension to every quarter of the globe. The natives of Nubia and Sennar employ it largely, and Professor Hartmann found its beneficial effects during an attack of fever to be so decided that he regretted having refused so long to submit to it. Dr. Emerson tells of its employment by the Sandwich islanders, under the name of Lomi-Lomi, and honoured guests are there shampooed as a special mark of regard. In some

cases, the people lay themselves on the ground and allow their children to run over their bodies by way of massage, a proceeding which is also seen in the province of Brandenburg. In Japan it has been used from the most ancient times as a refreshment after over-fatigue, as well as to cure diseases. Massage seems, however, to have been employed earliest of all by the Chinese. In the beginning of the present century a book, 'Cong-Fou,' 3,000 years old, was translated by the missionaries Hus and Amiot, in the medical part of which all the proceedings of the Swedish gymnastics are described so fully, as to render it likely that they were really taken from this work.

The following are the different movements of massage as now practised, and as the French have formulated them.

1. *Effleurage*. — *Friction douce*. — Slow, gentle strokes in a centripetal direction along the course of the veins and lymphatics, made with the palm of the hand, oiled, and with the pressure intermitting, so as to cause passive peristaltic action.

2. *Massage à friction*, in which the finger-tips of one hand, held at right angles to the axis of the limb, rub across and across in narrow ellipses, while the fingers of the other hand stroke parallel to the axis of the limb from above downwards.

3. *Kneading (pétrissage)*, which should also be done from the periphery towards the centre, and which consists in raising up the soft parts and kneading them in a way that may be compared to squeezing a full sponge.

4. *Tapotement*, or tapping or striking, causing concussion of the affected part, which may be done with the fingers, the palm, the margin of the hand, the closed fist, a percussion-hammer, or an instrument like a drumstick, with an India-rubber head and a whalebone stem.

The French have also various other instruments, and they employ also the passive movements of flexion, abduction, adduction, rotation, &c.

The amount of power required to be executed is very variable, and it wants much practice and experience. The number of sittings may vary from two to five in the day, and their duration from three to twenty minutes, or even one or two hours. The proceeding seems to cause the operator not only fatigue, but also a nervous excitability, from the action on the nerves of the fingers and hand.

The chief point of the question is the physiological effect which it has on the human body. Professor von Mosengeil thoroughly discussed the question in the German Surgical Congress in April 1875. The centripetal stroking favours the venous and lymphatic circulation, and acts backwards even on the parts which are not touched, so that a greater quantity of blood passes through the parts, causing increased tissue-metamorphosis. It is clear that the formation of exudation will be thereby prevented, and that exudation already formed will be removed, and even more solid formations will be faintly degenerated, and so absorbed. Pathological products can be removed even from such situations as the articular cavities, as has been proved by experiment.

Another result of massage is the diminution of pain. This may be partly due to the removal of pressure from the nerves, but it is also certain that after massage the entire sensibility of the part is reduced below normal, so that there must be some action on the nerves themselves. It may be of the nature of paralysis, or of some alteration in the

equilibrium between the nervous molecules, especially after 'tapotement.' The motor nerves, with the muscular contractility and the tone of the blood-vessels, are also affected.

Every possible form of disease has been at one time or another treated by massage, but the most important results have been seen in traumatic joint-affections, such as bruises and sprains.

The most suitable nervous cases for treatment are peripheral neuralgia, especially those characterised by injection and a varicose condition of the vessels of the neurilemma. Sciatica has been the neuralgia which has most repaid this treatment, but in other forms also a good result has been obtained. Articular neuroses have been remarkably improved under this treatment, but it is not to be forgotten that they are by some considered to be hysterical in nature. The other neuroses which have been treated successfully by different practitioners are the minor forms of chorea, writer's cramp, hypochondria and hysteria, infantile paralysis, and hemiplegia after apoplexy. It is particularly useful in atony of the stomach and intestines, and even volvulus has been cured by its use. It has, finally, been employed for relieving the brain of blood; and in one case of a soldier, treated by Herr Gerst, convulsions arising from nephritis were cured in four sittings in one day.

ALICE KER, M.D.

ARTICLE 799.

SPINA ON THE SUPPOSED TUBERCLE-BACILLUS AND ITS RELATION TO TUBERCULOSIS.

UNDER the above title, Dr. Arnold Spina states his views with respect to the correctness of the observations made by Koch and Ehrlich, and the deductions which they have made from them (*Allgem. Wiener Med. Zeitung*, No. 20). That his interpretation of the results obtained by these observers differs widely from their own, has been already made manifest by his previous writings on the subject. In the present paper, he enters with more detail into the particular points of difference.

With respect to the relations of the bacilli to the aniline colouring matters, he points out that Koch and Ehrlich have laid it down as a principle that the bacilli of tubercle are differently acted upon by certain colouring matters, and can be thus distinguished; that they are only tinged by certain aniline dyes when in an alkaline solution, and that they are impermeable to acids and to certain brown colouring matters. These theories are not founded upon actual observation during preparation, but are deduced from the results obtained by examination of the specimens when finally prepared.

Koch's teaching being altogether dependent upon the discovery of certain blue-coloured bacteria in the sputa of phthisical persons, the exact mode of action of the colouring matter upon these bacteria ought to have been worked out step by step by means of microscopic observation. This Dr. Spina alleges that he was the first to do. He has himself seen, he says, that acid and neutral solutions permeate the most different forms of bacteria and also the bacilli; that brown colouring matters also permeate the most various forms, including Koch's bacillus; and further, that nitric acid penetrates Koch's bacillus precisely in the same way as it affects other forms of bacteria. These observations,

exactly contradicting the conclusions which Koch has drawn, seem to do away with the barrier by which he separates the bacillus of tubercle from all other micro-organisms. That the observation of the occurrence of blue-coloured bacteria in phthisical spua is correct, Dr. Spina does not deny; but he explains the fact by pointing out that the intensity with which bacteria are coloured, and the length of time for which they retain such colour, are by no means constant. The irregular tinging of blood-cells forms an illustration of this, but it has not yet been attempted to be proved that the cells are of different variety because they acquire and retain artificial colour with different degrees of intensity. It is well known also that, of cells belonging to one and the same category, those are tinged the deepest which are the most recently developed. The thickness of the preparation and the characters of the media in which the micro-organisms are contained may also, in their turn, exercise considerable influence upon the duration of the colouring matters. Many of these factors being beyond the control of the observer, it follows that the results of the methods of staining must depend to some extent upon chance. It is not then difficult to understand how it is that such apparently contradictory results have been occasionally obtained; and the outcome of Koch's and Ehrlich's methods is, after all, only to demonstrate how many bacteria have withstood the decolorising action of the nitric acid, and not by any means to prove the existence of a distinct species of bacteria.

As confirmatory of these views of his, Dr. Spina quotes the results of the observations made by Licht-Ziehl, Finkler, and others. At the request of Professor Stricker, a fresh series of experiments were also undertaken by Drs. Kaberhel and Matray. These resulted in complete confirmation of Spina's observations with respect to the permeability of the bacilli to acids as well as to alkalies, to their permeability to the brown colouring materials, and to their absolute similarity in these as in other respects to the other forms of micro-organisms discoverable in the air-passages. A list is given of cases in which bacteria were discovered by the well-known method of staining, the bacteria appearing blue upon a brown ground. In secretions from the air-passages, intestines, or vagina, in non-tuberculous cases, the bacteria appeared in a large majority of cases.

Examined by Ehrlich's method, the number was much less. The experiments, however, clearly bore out Spina's statement that forms of micro-organisms, quite distinct from Koch's bacilli, may be coloured by the same staining process; and further, that Koch's bacilli maintain the same behaviour in the presence of the staining fluids as all the other bacteria.

With respect to the constant occurrence of the bacilli in tubercular tissues, Dr. Spina is likewise combative. If it be assumed that Koch's views are in all points correct, it follows that the bacilli, as the starting-point of the tuberculous process, should be present in the youngest developing forms of tubercle.

The earliest development of milary tubercle may be observed with the greatest minuteness in the omentum without difficulty. The bacilli have never been found (by Dr. Spina) in such cases, except where sufficient time had elapsed for the processes of decomposition to set in; and even in these latter cases the local distribution of the bacilli has not been such as to suggest any connection between

them and the tubercular process. The bacilli only appear at the edge and in the caseating tissue; in the recent non-caseous nodules which do not stand in any connection with atmospheric air, the bacilli may be altogether absent. The experiences of English observers, as Whipple, West, and others, bear this out. The bacilli have been often found wanting in the acute tubercle, although present in the vicinity of cavities or in their contents. In tubercular disease of the testis, also, the most careful search has failed to demonstrate their presence. Latterly, the bacilli have been discovered in three cases of lupus.

Thus, concludes Dr. Spina, on the one hand the tubercle-bacilli are conspicuous by their absence from places where, according to Koch's teaching, they should be; and, on the other hand, they are present in places where, from his point of view, they ought not to have access.

E. CLIFFORD BEALE, M.B.

SURGERY.

RECENT PAPERS.

800. HASSELWANDER.—A Case of Hernia Obturatoria Incarcerata: Operation: Recovery. (*Erstliches Intelligenzblatt*, March 20, 1883.)

801. BUCHANAN.—Penetrating Gun-shot Wound of the Abdomen. (*Brit. Med. Jour.*, March, p. 609.)

802. LLOYD.—Gun-shot Wound of the Abdomen. (*Brit. Med. Jour.*, March, p. 560.)

803. BAKER.—A Case of Bullet-Wound of the Tongue. (*Brit. Med. Jour.*, March, p. 457.)

804. CHARLES.—Gun-shot Wound of the Neck with Perforation of the Esophagus. (*Brit. Med. Jour.*, March, p. 611.)

805. MASTERMAN.—Phagedænic Carbuncle. (*Brit. Med. Jour.*, March, p. 510.)

806. PYE-SMITH.—Injury to Knee-joint, with Rupture of both Crucial Ligaments. (*Brit. Med. Jour.*, March, p. 416.)

807. O'CONNOR.—A New Treatment for Fractured Clavicle. (*Brit. Med. Jour.*, March, p. 406.)

808. WALKER.—A Novel Agent in the Radical Cure of Hydrocele. (*Brit. Med. Jour.*, March, p. 511.)

809. STOKES.—Penetrating Wound of the Bladder. (*Brit. Med. Jour.*, March, p. 565.)

810. KENNEDY.—Prurigo Podici. (*Brit. Med. Jour.*, March 1883.)

811. LUCAS.—Ozæna due to Foreign Bodies. (*Med. Times and Gazette*, March, p. 351.)

812. SAVORY.—Enlarged Prostate and Stricture. (*Lancet*, March, p. 356.)

813. DONOVAN.—Total Suppression of Urine, lasting seventy-five hours: Recovery. (*Lancet*, March, p. 402.)

814. JONES.—Separation of the Epiphysis of the Tibia during Traction in Hip-Disease. (*Lancet*, March, p. 403.)

815. BLOCK.—Suture of Wounds of the Heart. (*Lancet*, March, p. 422.)

816. BARTON.—A Case of Large Spinal Abscess filling the Abdomen and Obstructing the Vena Cava. (*Lancet*, March, p. 453.)

817. MAY.—Retraction of the Flap after Syme's Operation. (*Lancet*, March, p. 361.)

818. HENCK.—A Contribution to Tendo-plastics. (*Centralbl. für die Med. Wiss.*, Feb. 17.)

819. COZE.—Survival after Penetrating Wound of the Heart. (*Jour. de Méd. et de Chir. Prat.*, March.)

820. KORETZKY, A. G.—The Pathology and Treatment of Erysipelatous Inflammations. (*Tratsh*, 1882, No. 23, pp. 376-9; No. 24, pp. 392-5; and No. 25, pp. 407-10.)

821. ALFAGO-NOVELLO.—Ischuria from Hypertrophy of the Prostate. (*Gazz. Med. Ital. Prov. Venete*, April 26.)

822. RIEBUS.—Cold Phenicated Baths in Surgical Inflammations. (*El Siglo Medico*, April 15.)

823. ROSER.—Angina Ludovici. (*Deutsche Med. Wochens.*, March 14.)

824. KUMAR.—Embolie Gangrene. (*Wiener Med. Blätter*, March 8.)

825. GUSSENBAUER.—A Pancreatic Cyst. (*Ibid.*, March 22.)

826. WOLFF.—Trophic Disturbances in Primary Affections of the Joints. (*Deutsche Med. Wochens.*, March 14.)

827. SENATOR.—Obstruction of the Veins of the Abdomen and Lower Limbs. (*Deutsche Med. Wochens.*, March 28.)

ART. 800. *Hasselwander on a Case of Obturator Hernia: Operation: Recovery.*—A Bavarian countrywoman, aged 65, was suddenly attacked, on October 24, 1882, with colicky pains, flatulence, and constipation, complete loss of appetite, occasional vomiting, and pain in the left foot. On the third day she was brought by her husband to Hausham, where Dr. Hasselwander is established as a practitioner. She was then suffering from an aggravation of the above symptoms, with great distension of the abdomen which was almost universally tympanitic on percussion. The entire left lower extremity was numb, and an itching sensation was felt in the thigh. The patient's urine was highly albuminous. On close inspection, it was found that, although the patient was much emaciated, the depression in Scarpa's triangle, between the adductor longus and the sartorius did not exist on the left side; but, on pressure over its site, which did not present any protrusion, but was simply level with the muscular boundaries of that anatomical region, much pain was produced. On vaginal examination, fullness was detected on the left side of the pelvis. A femoral hernia was suspected, and on pressure over the tender region partial reduction was effected; flatus passed from the rectum on the next day, but the abdominal pains and the tendency to vomit did not abate. Dr. Hasselwander suspected that an incarcerated obturator hernia existed, or rather that the condition of the rupture now indicated strangulation. An operation was therefore undertaken, and it proved difficult from the very onset, being performed late in the day when twilight was creeping on. An incision, four inches in length, was made through the integuments along the line of the outer border of the adductor longus, beginning from the pubes. When that muscle was exposed, the cellular tissue was dissected from its surface, and it was drawn inwards. Some fibres of the pectineus, laid bare by this dissection, were parted by means of the fingers and a pair of forceps, and this proved an easy task, owing to the relaxed condition of the muscle. During this process the hernia was plainly felt, by the operator's fingers, under the pectineus. The aperture thus made over the hernial protrusion was then enlarged, but some of the large veins were wounded, an accident that caused most troublesome hæmorrhage during the remainder of the operation; fortunately, one external pudic artery was seen pulsating in the upper angle of the wound and kept out of danger. After much time had been spent in controlling the venous hæmorrhage, the hernial sac was found to be an oval dark purple swelling, the size of a pigeon's egg; it was very tense, yet fluctuation could be detected on palpation. Some strong adhesions were separated from its exterior by the

finger. A very blunt knife was employed to open the sac, which consisted of an outer layer of fascia and an inner coat of oedematous cellular tissue; no fluid escaped, but the gut could be felt. The opening was made wider by laceration. The intestine appeared deeply congested, very tense, and sharply constricted at the neck of the sac, where it passed out of the pelvic cavity through the obturator foramen. By means of a straight probe-pointed bistoury incisions were made on the inner and lower borders of the neck of the sac, where no artery could be felt pulsating, and the fibrous tissue round part of the foramen was thus divided. With great care the intestine was then reduced. The wound was plugged antiseptically. Flatus passed directly after the operation, and a few hours later the patient's bowels acted copiously. The wound suppurated freely, delaying convalescence; but the symptoms directly caused by the hernia never returned. The patient recovered completely in five weeks. The pain in the left lower extremity disappeared immediately after the operation, but for a few days there was loss of muscular power in the limb. This was attributed to previous stretching of the obturator nerve by the hernial protrusion. According to Schmidt's recent statistics, in Pitla and Billroth's *Handbuch*, 1882, only twenty-five cases of obturator hernia have been diagnosed during lifetime: seventeen of these underwent operation, eight were relieved by taxis, and out of the entire series only five recovered.

ALBAN DORAN.

801. *Buchanan on Penetrating Gun-shot Wound of the Abdomen.*—Dr. George Buchanan, of Glasgow, in the *Brit. Med. Jour.*, March 1883, p. 609, records the case of a man, aged 25, who received a gun-shot wound in the abdomen which penetrated the body and was removed from the muscles of the back. The patient ultimately recovered. The bullet entered about three inches and a half above the umbilicus, and an inch to the left of the middle line. There was a good deal of pain in the back opposite to the wound, but there was no evidence of anything there. Grave symptoms of collapse came on, and ether was injected subcutaneously from time to time. The next day the symptoms improved, and there was no pain or tympanites; there was, however, great pain in the back, and it was decided that the bullet had lodged there. For some days the patient gradually improved, but some ten days after the accident he became febrile, with a distinct evening rise of temperature, and at length some fullness was detected in the left lumbar region. The patient was put under chloroform, and a full incision made parallel to the spinal column, giving exit to a quantity of purid fluid. On examination, the tip of the second transverse process was found broken, and against it the bullet was found crushed and grooved. A drainage-tube was inserted after washing out the wound with carbolic acid, but after five or six days the wound was reopened and more pus let out; for four or five weeks there was constant fever with frequent rigors, and subsequently effusion into the right knee and ankle, which passed off, and the patient left the hospital convalescent about nine weeks after the accident; Dr. Buchanan being perfectly satisfied, from all the symptoms of the case, that the bullet passed directly through the abdomen.

802. *Lloyd on Gun-shot Wound of the Abdomen.*—Mr. Lloyd, in the *Brit. Med. Jour.*, March 1883, p. 560, gives notes of a female patient, aged 19, who

had been accidentally shot in the abdomen. The bullet had entered slightly to the left of the median line, immediately above the pubes. As there was little evidence of shock, and the patient had no bad symptoms of injury to any abdominal viscus, it was decided not to operate at first; but on the third day she became much worse, with persistent vomiting and severe abdominal pains, so that an operation was performed, but the patient died very soon afterwards. At the *post mortem* examination, it was shown that the bullet had entered half an inch above the pubes and three quarters of an inch to the left of the middle line. The apex of the bladder was contused, and a free edge of a coil of small intestine had been cut through; the mesentery was also perforated. The upper part of the abdominal cavity was free from inflammation. In a few remarks, Mr. Lloyd adds that he thinks it is best to operate at once in such cases, and not to wait until inflammation sets in.

803. *Baker on a Case of Bullet-wound of the Tongue.*—Mr. Morrant Baker, in the *Brit. Med. Jour.*, March 1883, p. 457, gives the notes of a case of a boy, aged 13, who received a gun-shot wound from a revolver; the bullet pierced the right upper lip, passing right through; and the upper canine and upper lateral incisor teeth on that side were completely shot out, the canine being entire, while the crown of the incisor was broken off. No wound could be found in the hard palate, or cheeks, or floor of the mouth; but on the upper and anterior surface of the right half of the tongue was a ragged wound about the size of a large pea. The boy was put under chloroform, but no bullet could be found. On the sixth day the bullet was passed *per anum*, well coated with feces. The case is remarkable, as the revolver was fired at a distance of only three yards, and the force of the bullet was broken by the teeth; it then penetrated the tongue, and must have dropped down the gullet.

804. *Charles on a Case of Gun-shot Wound of Neck, with Perforation of Œsophagus.*—Dr. Allen Charles, in the *Brit. Med. Jour.*, March 1883, p. 611, reports a case of a lad, aged 18, who was examining a pistol loaded with two slugs, when it accidentally went off, the slugs entering his neck; and from the fact that the patient commenced spitting blood after the accident, together with difficulty in swallowing, it was evident the Œsophagus was wounded. There were many points of interest in the case, amongst which were noticed—1, the readiness with which the wound of the Œsophagus healed; 2, the comparative safety of such injuries, notwithstanding the numerous blood-vessels in the part; and 3, the possibility of subsequent stricture.

805. *Masterman on Phagedenic Carbuncle.*—Mr. G. F. Masterman in the *Brit. Med. Jour.*, March 1883, p. 510, points out that, since the time of Harvey Ludlow, two forms of carbuncle have been recognised; one in which the sloughing does not extend, or very slightly, beyond the original area of the disease; the other in which this process is accompanied by fresh peripheral mischief, the disease rapidly spreading from the spot, where it first appeared, sometimes deeply, but generally limited by the superficial fascia, and attacking preferentially the skin of the face. From recent cases which have come under Mr. Masterman's care, he considers he has found out the reason of the difference in these two forms; which is, that in the severer form he has always detected albuminuria,

whilst in the other form no albumen was detected in the urine. Although glycosuria is generally mentioned as a cause of carbuncle, it has not been noted that albuminuria was a cause of it, as far as Mr. Masterman was aware; and a point on which he lays great stress is that the old treatment by stimulants is in many cases extremely bad.

806. *Pye-Smith on Injury to the Knee-joint with Rupture of Both Crucial Ligaments.*—Mr. R. Pye-Smith, in the *Brit. Med. Jour.*, March 1883, p. 116, relates a case, in which a cabman, aged 53, twisted his right knee in falling from his cab. There was considerable lateral mobility of the joint, and it contained fluid. Pneumonia developed, and proved fatal on the eighth day after the injury. At the *post mortem* examination, the internal lateral and crucial ligaments were found to be completely ruptured; the central part of the cartilage of the patella was crushed into fibres, so as to present a plush-like appearance. The joint contained a few small clots of blood, but there was no dislocation of the joint, nor injury to the popliteal vessels.

807. *O'Connor on New Treatment for Fractured Clavicle.*—Dr. M. R. O'Connor, in the *Brit. Med. Jour.*, March 1883, p. 406, describes a plaster-of-Paris splint which he has used for some time past in the treatment of fractured clavicle. It is made by sewing the edges of two layers of flannel together, which extend from below the spine of the scapula behind, to nearly the nipple-line in front, having a concave border behind on its inner side for the neck, and outside slightly overlapping the acromion process, thus covering the entire shoulders. The outer layer is then slit from the acromion process directly inwards, thus forming two pouches, into which plaster-of-Paris is poured; the arm is now placed in good position, and the plaster manipulated until about an inch thick all over. Four elastic strings, attached to the angles of the splint, are tied under the corresponding armpits, and the arm is bandaged across the chest. The splint does not need to be taken off until union is perfect.

808. *Walker on a Novel Agent in the Radical Cure of Hydrocele.*—Mr. J. E. W. Walker, in the *Brit. Med. Jour.*, March 1883, p. 511, writes, saying that he discovered by accident a new agent for injecting hydrocele, with a view to a radical cure. One day he proposed to inject a patient, aged 65, whose hydrocele had been tapped repeatedly for ten years. He took out a bottle from his pocket, and injected two drachms of the fluid it contained. On arriving home he found that he had injected two drachms of liquor ergotæ (Battley) instead of the same quantity of tincture of iodine. No inflammatory state followed, the patient was able to walk about the next day, and the hydrocele did not fill up again. Two cases have been tried subsequently with the same fluid, and with perfect success.

809. *Stokes on Penetrating Wound of the Bladder.*—Mr. Stokes, in the *Brit. Med. Jour.*, March 1883, p. 565, gives an interesting history of a patient who had suffered from an injury to the rectum and bladder. The handle of a long pair of forgers' tongs, over which the patient was vaulting, passed through the anus into the rectum, perforating the anterior wall of this viscus about an inch and a half from the anus; here the instrument passed into the bladder through the trigone, and emerged at the fundus opening into the peritoneal cavity. The patient died about seventy hours after the accident in great agony.

810. *Kennedy on Prurigo Podicis*.—Mr. Kennedy, in the *Brit. Med. Jour.*, March 1883, p. 649, remarks that a patient of his derived great benefit from a weak solution of sulphurous acid when suffering from prurigo podicis.

811. *Lucas on Ozena due to Foreign Bodies*.—Mr. Clement Lucas, in the *Med. Times and Gazette*, March 1883, p. 351, gives a good article on cases of ozena due to foreign bodies, and he starts with the axiom, 'Persistent one-sided ozena in a healthy child is due to a foreign body in the nasal cavity.' A woodcut is given, illustrating a speculum made for Mr. Lucas by Messrs. Millikin and Down, of St. Thomas's Street, whilst for an extractor for the ear or nose the author suggests heating a large curved suture needle to redness, and then pressing it against some hard body, so as to make a delicate hook. This is so fine that it will pass by without disturbing a foreign body, but in being withdrawn will retain a firm hold upon it.

812. *Savory on Enlarged Prostate and Stricture*. Mr. Savory, in the *Lancet*, March 1883, p. 356, gives some notes on the treatment of enlarged prostate and on the treatment of stricture of the urethra. In speaking of retention from enlarged prostate, the author states that much good is often gained by retaining a catheter for some time after it has been introduced, say an hour or two, with a view of producing an effect on the prostatic portion of the urethra, and to improve the power of micturition. It is also noted that a full-sized catheter with the ordinary curve is often passed more readily than the instrument especially made for cases of this description. With reference to stricture, Mr. Savory says that a great many cases are treated by instruments which ought not to be. Such cases, where there is a slight thickening of the membrane from inflammation or congestion, would recover if left alone and rest were ordered, instead of passing instruments which irritate and worry the contraction into a permanent stricture.

813. *Donovan on Total Suppression of Urine Lasting Seventy-five Hours: Recovery*.—Mr. Donovan, in the *Lancet*, March 1883, p. 402, gives notes of a case of an engine-driver, aged 42, who sent for him on account of having suffered for twenty-four hours from retention of urine. There was nothing to account for the retention in the previous history of the patient beyond being exposed to cold, and to excess of spirituous liquor. Every method of treatment was tried, but the bladder remained perfectly empty for seventy-five hours, the patient being fairly comfortable and free from pain during the time; then two ounces of high-coloured urine were passed, and after this the flow became perfectly established. Mr. Donovan considers the case as one of those rare instances described by Sir Henry Thompson as paralysis of the kidneys, depending most likely on extreme vascular congestion of these organs, paralyzing their secreting power. [In the *Medical Digest*, section 1036 : 3, a number of cases are reported, some lasting 58, 43, and 25 days.—*Rep.*]

814. *Jones on Separation of Epiphysis of Tibia during Traction in Hip-Disease*.—Mr. Jones, in the *Lancet*, March 1883, p. 403, draws attention to a case first reported in the *Lancet*, Feb. 12, 1881, where the traction had separated the shaft from the epiphysis, and adds some further particulars as a sequel to his former article. Mr. Jones states that the patient is at the present time in excellent health, though backward in physical development; there is

a shortening of two inches in the diseased leg, but he is able to walk a great deal without pain or uneasiness. On measuring the legs it was found that, although there was a difference of two inches from the anterior superior iliac spine to the tip of the internal malleolus in the two legs, yet there was only a difference of half an inch in the two thighs, three-fourths of the difference being due to the tibia of the diseased leg being one inch and a half shorter than the other. This Mr. Jones considers due to the arrest of the growth of the bone, on account of being separated from its epiphysis, and suggests that all the advantages of traction might be obtained by placing the fulcrum on the femur, immediately above the condyles, instead of at the ankle.

815. *Block on Suture of Wounds of the Heart*.—In the *Lancet*, March 1883, p. 422, an article appears alluding to some experiments which have been made by M. Block, by which he endeavoured to point out that death from wounds of the heart is usually due to asphyxia from effusion of blood into the pericardium, or to loss of blood, or to damage to the motor ganglia of the heart, or to obliteration of the coronary artery. By experiments on dogs and rabbits he has shown that suture of wounds of the heart can be successfully carried out in the space of three or four minutes. In order to hinder the escape of blood during the suture, the apex of the heart was seized and pulled so strongly that the pulse and respiration ceased, so that it was possible to operate, the heart being completely at rest.

816. *Barton on a Case of Large Spinal Abscess Filling the Abdomen, Obstructing the Vena Cava*.—Dr. Barton, in the *Lancet*, March 1883, p. 453, gives the notes on a case of a boy, aged 16, who had suffered from spinal curvature for five years. The abdomen was filled on the right side, pushing the intestines *en masse* to the left; and the abscess threatened to point below the ribs in the nipple-line. Sixty-nine ounces of greenish colourless pus were drawn off by an aspirator, which became blocked by flaky pus; six days after eight ounces were drawn off, and then six ounces. On a subsequent occasion, three drachms of tincture of eucalyptus were injected, and a few days after this seventy-six ounces of creamy pus were removed, the abscess being now entirely emptied. In about three months the boy went out of hospital, cured, and gaining flesh. The points of interest in the case are, that the size of the abscess simulated ascites; it took five years to form, and caused the patient very little inconvenience; also the curious effect the eucalyptus had on the flaky pus, which could not be removed on account of its character, but became fluid after the injection of the eucalyptus.

817. *May on Retraction of the Flap after Syme's Amputation*.—Mr. Bennett May, in the *Lancet*, March 1883, p. 361, refers to Mr. Savory's Notes on Surgery in the *Lancet* of Feb. 3, on retraction of the heel-flap after Syme's amputation. Mr. May's patient returned to him eighteen months after operation, with the cicatrix receiving all the pressure, and the heel part retracted quite to the back of the leg. Division of the tendo Achillis completely liberated the flap, and enabled it to be readjusted, with great relief to the patient. RICHARD NEALE, M.D.

818. *Henck on the Plastic Surgery of Tendons*.—Henck (*Centralbl. für die Med. Wiss.*, Feb. 17) says that, for four weeks after a rupture of the tendon of the flexor longus pollicis, Czerny found the divided ends more than 2½ centimètres apart (0.78 English

inch), and it was only possible to approximate them within four-fifths of an inch of each other. A longitudinal division of each end was made, and the two portions united with catgut sutures, so that the tendon could be brought as nearly as possible to its normal position. The result was very successful. Four weeks after the operation, considerable movement of the hand had been recovered; the only difference was that the distal finger-joints of the left hand could not be quite so entirely flexed as on the right.

W. B. KESTEVEN, M.D.

819. *Coze on Survival after Penetrating Wound of Heart*.—Dr. Coze (*Jour. de Méd. et de Chir. Prat.*, March 1883) reports a case of gun-shot wound of the heart penetrating the left ventricle, in which the patient survived four hours and a half.

ROBERT SAUNDREY, M.D.

820. *Koretzky on the Pathology and Treatment of Erysipelatous Inflammations*.—Dr. A. G. Koretzky (*Vratch*, 1882, Nos. 23, 24, and 25) describes how he has succeeded in almost completely expelling endemic erysipelas from the Kremenchug Zemsky Hospital, where he has held the office of senior physician and surgeon. Before his time, and when he first came into office, erysipelas was a daily occurrence, and a common complication of wounds and ulcers. Under his administration only three cases of erysipelas occurred, the number of stationary patients being 188, in forty-eight of whom various major operations had been performed. The author ascribes this favourable change to his reforms in the management of the hospital. Of what character these reforms have been may be clear from the following general conclusions at which Dr. Koretzky has arrived. 1. Erysipelas is a contagious disease and yields to antiseptic treatment when this is carried out with the utmost strictness. 2. In all infected hospitals (of which the Kremenchug Zemsky Hospital is a very good specimen), the use of spray is necessary. 3. Erysipelas is communicated from one patient to others through direct contact of an infected wound with a healthy one, or, and this is the most important point, through the hands of the attendants (surgeons, assistants, nurses, &c.). The attendants' hands are the main carriers of contagion; therefore their cleanliness cannot receive too much attention. 4. There exists a large group of progressive inflammatory processes which are all essentially erysipelatous. To this group belong whitlow, the acute purulent oedema of Pirogoff, lymphadenitis and lymphangitis of various kinds, phlegmonous abscesses, puerperal processes, &c. 5. The treatment of erysipelas consists (a) in prophylaxis, strictest cleanliness of everybody and everything, antiseptic precautions, isolation of the patients operated on from the subjects attacked by the diseases just mentioned; and (b) in therapeutic measures, antiseptic remedies used externally and internally. The author eulogises especially the local application of iodoform and ice.

V. IDELSON, M.D.

821. *Alpago-Novello on Ischuria from Hypertrophy of the Prostate. Repeated Suprapubic Puncture of the Bladder: Cure*.—The author (*Gazz. Med. Ital. Prov. Veneto*, April 28, 1883), maintains that suprapubic puncture of the bladder is a much safer proceeding than is usually taught. He narrates the case of an old man suffering from retention of urine from hypertrophy of the prostate, in whom it was impossible to pass a catheter; he punctured the bladder 3 or 4 centimètres above

the superior margin of the pubes to the left of the linea alba, with a small straight trocar 2 millimètres (.078 in.) in diameter, without preliminary incision of the skin. The patient felt scarcely any pain. The cannula was pushed well in to the bladder towards the neck, the sick man lying on his side; two litres of urine were drawn off, the cannula extracted and the puncture covered with a bit of sticking-plaster. The next day the bladder was again punctured very nearly in the same place, twice, morning and evening, and on the day following once more. A catheter was then passed, and gradually the patient recovered the power of passing urine. The author says any incision of the skin before inserting a small trocar is unnecessary. A fine straight trocar answers very well. The safety and facility of this operation give it great advantages over forcible passage of a catheter. Prof. Scarenzio also recommends that this operation should be performed when serious difficulty is found in passing a catheter, and says that capillary puncture of the bladder is attended with no risk, even if repeated several times a day. Extravasation of urine has never been known to take place, the puncture of the bladder contracting and healing at once.

822. *Ribus on Cold Phenicated Baths in the Treatment of Surgical Inflammatory Lesions*.—Dr. P. D. Ribus publishes (*La Independencia Medica*, and *El Siglo Med.*, April 15) seven cases showing the advantages of this treatment by frequently repeated cold phenicated baths. The first case was one of diffused inflammation of the hand and forearm, with high fever, diarrhoea, and intense pain. The hand was freely lanced, but, in spite of poultices and sedatives, the suffering was very great. Dr. Ribus then ordered cold baths ($\frac{2}{3}$ per cent. of carbolic acid) of twenty minutes' duration every three hours, the hand and arm being covered with compresses of the same solution. The patient did remarkably well, and experienced almost at once great relief. The antiseptic and astringent effects of the baths are of indisputable utility in practice, as well as theoretically indicated.

G. D'ARCY ADAMS, M.D.

823. *Roser on Angina Ludovici*.—Professor Roser, of Marburg, writes (*Deutsche Med. Wochenschr.*, March 14) on the new species of inflammation described by Ludwig, which has its seat in the submaxillary gland. Niemeyer and others, in describing the disease, have confused it with inflammation arising from the lymphatic glands, and with disease of the lower jaw, but Ludwig distinctly stated that he found no implication of the lymphatic glands. The cases which he saw were all unusually severe, and generally ended in death, but at the present day a fatal ending is an exception to the rule. The swelling manifests itself externally in the neck, and internally between the tongue and the gum. In severe cases the mouth can hardly be opened, and the oedema which accompanies the inflammation may render the diagnosis difficult. In Ludwig's time, the treatment of deep abscesses by the knife was unknown, so that he does not mention it; but Professor Roser has treated all his cases by early incision, using the forceps to reach the deep-seated pus, and he attributes the frequency of his recoveries to the early evacuation of the abscess. Swelling of the lymphatic glands may be mistaken for Ludwig's angina, but it does not pass so readily to the floor of the mouth as the swelling of the salivary glands must necessarily do. An abscess of the gum or an

ostitis of the lower jaw must also be distinguished from this special disease; and when the patient has been seen from the beginning of the swelling, this is more easy than when the surgeon is suddenly called to a condition of great swelling and oedema, perhaps threatening suffocation. In such a case, the evacuation of the pus has to be made first, and the diagnosis of its source afterwards. The pus which is evacuated from the salivary gland is very offensive, probably on account of some salivary ferment, and this fact will aid diagnosis. This disease is probably the same as Dupuytren's 'Phlegmon large du cou,' Nélaton's 'Phlegmon latéral du cou,' and Stromeyer's fibrinous phlegmon at the margin of the lower jaw. It will be useful to inquire what observations have been made in hospitals on this special epidemic disease, and what appears to be the cause of it. It is most likely caused by some parasite, but the form is not yet known.

824. **Kumar on Embolic Gangrene.**—Dr. Kumar relates (*Wiener Med. Blätter*, March 8) a case of embolic gangrene from the surgical department of the Wieden Hospital. A woman, 60 years of age, on going upstairs, felt suddenly a violent pain in both lower extremities, and could with difficulty reach her bed, where she lay fourteen days before being admitted to hospital. On admission the toes and the whole of the right foot were shrunken and dry, and the leg lividly discoloured half way to the knee, with a red line of demarcation bounding a tract of oedematous swelling which lay above. On the left side the great toe only was affected. The right femoral artery was felt as a solid cord reaching above Poupart's ligament, the left still pulsated a little, the heart was enlarged vertically, the pulse small, and all the arteries rigid. The severe pain was eased by morphia injections, and the gangrenous parts disinfected by strong carbolic acid and covered with a plaster and tar bandage (Gypstheer); but the gangrene mounted gradually as far as the right knee and the middle of the left calf, and bed sores and cystitis had complicated the case before death occurred six weeks after admission. Morphia injections were the only treatment, besides the local disinfection, and unsuccessful attempts to prevent decubitus. [There is no record of an autopsy.—*Ref.*]

825. **Gussenbauer on a Pancreatic Cyst.**—At a meeting of the Society of German Physicians in Prague on March 9 (*Wiener Med. Blätter*, March 22) Professor Gussenbauer showed a man, 40 years of age, on whom he had operated for a cyst of the pancreas. An incision was made in the median line, and the stomach detached in part from the transverse colon; the wall of the cyst was then fixed to the opening in the abdominal wall, to prevent escape of its contents into the peritoneum, and 1,900 cubic centimetres of fluid, which proved to be altered blood, were evacuated. A considerable amount of fluid escaped from the wound during the process of healing, and caused an eczematous eruption on the skin, such as is seen after the formation of gastric fistula, showing the fluid to be digestive. On experiment, it was found to digest albumen and to change starch into sugar, so that its pancreatic nature was beyond a doubt. A fistula still existed, leading to a small cavity, from which a little pancreatic fluid exuded.

826. **Wolff on Trophic Disturbances in Primary Affections of the Joints.**—At the meeting of the Berlin Medical Society, on February 28 (*Deutsche*

Med. Wochens., March 14) Herr Wolff spoke on trophic disturbances in primary joint-affections, pointing out that the alteration in the limb is not always shortening, but very often lengthening; and that it cannot therefore depend, as was formerly supposed, on interference with the epiphysis. He was inclined to ascribe it to reflex nervous influence. In the next meeting, on March 7, Herr Israel said he had seen several cases such as Herr Wolff had mentioned, but that he did not agree with his explanation of them, as he had found lengthening of the limb without any joint-affection. There were even cases of phlegmonous inflammation, in which an increase of growth had resulted without an affection of the bone. Herr Wolff replied that even the phlegmonous case might involve accompanying periostitis, but that he did not pretend to give an explanation of the facts he mentioned.

827. **Senator on Obstruction of the Veins of the Abdomen and Lower Limbs.**—Herr Senator showed a case to the Berlin Medical Society on March 21 (*Deutsche Med. Wochens.*, March 28) of an extremely rare affection of the veins of the abdomen and lower extremities. These veins, enormously dilated and tortuous, presented the appearance of an unusually well-marked so-called caput Medusæ. None of the abdominal organs were diseased, but the obstruction was referred to the iliac veins. The patient had received a bullet in the shoulder at Gravelotte, which could not be extracted in spite of repeated trials. It was now felt by the patient in the pelvis, where it produced those symptoms—less no doubt by actual pressure on the veins than by setting up inflammation, which resulted in adhesions and cicatrices. Virchow had never seen a similar case.

ALICE KER, M.D.

MEDICINE.

RECENT PAPERS.

828. **MADER.**—Vomiting in Perforating Ulcer of the Stomach. (*Wiener Med. Blätter*, March 22.)

829. **MADER.**—The Curability of Consumption. (*Ibid.*, March 8.)

830. **SCHWERIN.**—A Case of Mumps with Delirium. (*Deutsche Med. Wochens.*, March 7.)

831. **FEL.**—The Diagnosis and Prognosis of the Liver. (*Deutsche Med. Wochens.*, March 7.)

832. **ALEXICH.**—Epidemic Parotitis. (*Gazz. Med. Ital. Prov. Venet.*, April 7.)

833. **RENDU.**—Acute Pericarditis. (*Gazz. Med. Ital. Prov. Venet.*, No. 21.)

834. **TORRE DE LA ABELA.**—Trichinosis in Malaga. (*El Sentido Catal.*, April 8.)

835. **NOTHNAGEL.**—Diabetic Coma. (*Allgem. Wien. Med. Zeitung*, No. 10, 1883.)

836. **BAMBERGER.**—Biliary Cirrhosis of the Liver. (*Allgem. Wien. Med. Zeitung*, No. 49, 1882.)

837. **SCHROTTER.**—Musical Cardiac Murmurs. (*Allgem. Wien. Med. Zeitung*, No. 1, 1883.)

838. **SANSOM.**—The Treatment of some Forms of Valvular Disease of the Heart. (*Brit. Med. Jour.*, Feb. 1883, p. 263.)

839. **WHITHAM.**—Erythematous Eruption in Scarlet Fever. (*Brit. Med. Jour.*, April, p. 771.)

840. **MACKENZIE.**—The Pathology of Diabetes. (*Brit. Med. Jour.*, April, p. 655.)

841. **CROWFOOT.**—Simulated Scarlet Fever. (*Brit. Med. Jour.*, April, p. 729.)

842. **WEST.**—Purulent Pericarditis treated by Paracentesis and Free Incisions: Recovery. (*Brit. Med. Jour.*, April 1883, p. 814.)

843. ALLEN.—Bilharzia Hematobia. (*Lancet*, April, p. 660.)
844. SÉE.—The Pulmonary Complications of Erythema Nodosum. (*Le Progrès Méd.*, Nos. 15 and 16.)
845. CORNILLON.—Hematemesis from Washing out the Stomach. (*Le Progrès Méd.*, Nos. 15 and 16, 1883.)
846. KINNICUTT.—Purulent Inflammation of all the Great Serous Cavities. (*New York Med. Record*, April 21.)
847. CAPATAN.—Albuminuria in Healthy Persons. (*Recherches Experimentales et Cliniques sur les Albuminuries Transitoires*, 1883.)
848. DUGUET and DERIGNAC.—The Pharyngeal Complications of Typhoid Fever. (*Le Progrès Méd.*, 1883.)
849. CHARCOT.—Cervical Pachymeningitis. (*Le Progrès Méd.*, 1883.)
850. CHARCOT.—Double Sciatica in a Cancerous Patient. (*Le Progrès Méd.*, No. 18, 1883.)
851. MAGNAN.—Verbal Deafness. (*Le Progrès Méd.*, No. 20, 1883.)
852. BURGER.—Addison's Disease. (*Allgem. Med. Central-Zeitung*, March 1883.)
853. BALLEE and DUTIL.—Trophic Disturbances of the Skin in Tabes. (*Le Progrès Méd.*, No. 20, 1883.)

ART. 828. *Mader on Vomiting in Perforating Ulcer of the Stomach.*—Is vomiting present in peritonitis from perforation of ulcer of the stomach? Dr. Mader, of Vienna, puts this question (*Wiener Med. Blätter*, March 22) in reference to an article by Professor Ebstein, published in No. 4 of the *Blätter*, in which he gives the absence of vomiting as a certain diagnosis of gastric ulcer. But one case in which vomiting had taken place would render this law useless; and even in a case given by Ebstein as an illustration, the vomiting was present until fifty hours before death, but he considered the perforation to have been caused by the vomiting, and not *vice versa*. Where the walls of the ulcer are very thin, and great distension of the stomach is present, the contents will certainly pass more easily into the abdominal cavity than through the cardiac orifice; but a perforation small enough to allow only gas and fluids to pass may be closed by the antiperistaltic action of the stomach, so that most of the gastric contents will pass by the œsophagus. Adhesions may also have been formed between the site of the ulcer and the neighbouring organs, as happened in Ebstein's case, so that the fluid is prevented from passing at once into the peritoneal cavity. In Dr. Mader's case, a young woman, aged 24, well-nourished and healthy, with the exception of some degree of chlorosis, had felt moderate pain in the left side for four days, with constipation for two days. Just before admission the pain had suddenly become greater, and the pulse was more frequent; but the amount of fever was small, and the paleness no more than was customary. The abdomen was tense, but not distended, and light percussion, which was all that could be borne, found dulness on the left side. Next day there was a little bilious vomiting, but the subjective symptoms were less. On the day following, however, the abdomen was distended and very tender, the patient was pale and collapsed, vomiting continued all day, and in the night she died. Free gas and purulent fluid with gastric contents were found in the peritoneal cavity; the stomach was collapsed, and in its anterior wall was a perforation, about the size of a pea on the peritoneal surface, twice as large on the mucous. There was no attempt at cicatrization. The chlorosis,

combined with some slight catarrh of the stomach, had evidently caused the formation of an ulcer which had given rise to no pain until the process reached the serous coat, four days before admission. During the time of moderate pain, some adhesions had evidently been formed with neighbouring organs, so that when the serous membrane gave way, at the commencement of severe pain, neither gas nor fluid escaped at once. Inflammation of reaction then set in, and the process seemed to stand still, until the slight adhesions gave way, and the escape of the contents of the stomach caused death. Vomiting was present almost till the end.

829. *Mader on the Curability of Consumption.*—Dr. Mader, of Vienna, writing on the curability of pulmonary tuberculosis (*Wiener Med. Blätter*, March 8), remarks on the paradox that medical men call tuberculosis incurable at the bed-side, and yet see many cases of cured pulmonary tubercle on the *post mortem* table. Many such cases may escape observation during life, by belonging to persons who do not call in a physician when they are first taken ill, or who, if they do come to hospital, leave it only a little, if at all, improved, and complete their convalescence at home. He mentions a case, which he saw cured in hospital, of a lad, aged 15, who was admitted with hæmoptysis, high fever, and unmistakable signs of phthisis at the apices of the lungs, dulness, cracked-pot sound, &c. This condition lasted some weeks, death being daily expected, when the patient, after about six weeks in hospital, began to amend; the fever left him, and he was discharged free from cough, but with some dulness and sharpness of respiration still remaining. Fourteen months afterwards he was admitted in much the same state as the first time, and death occurred in ten days. Tubercles were found in the upper part of both lungs, in all stages, from grey and yellow to caseous and calcareous; the old cured ones corresponding to the former attack, and the recent ones to the illness which carried him off. Bronchiectasis was also present to a large extent. After leaving the hospital for the first time, his work obliged him to stand in water a good deal, and the resulting bronchial catarrhs probably softened the healed tubercles, and made them fresh centres of infection. No bacilli were found in the masses coughed up during his second attack; but, as they may have come from the large dilatations where the tubercular process had ceased, the fact only shows that a failure to find them does not exclude the possibility of tubercle. Dr. Mader has seen other cases of cure; none, however, so striking as this one.

830. *Schwerin on a Case of Mumps with Delirium.*—At a meeting of the Verein für innere Medizin, Jan. 22 (*Deutsche Med. Wochenschr.*, March 7), Herr Schwerin communicated a case of mumps in a man, aged 24, where the parotid swelling was very great for the first five days, but without fever or other general disturbance, and the patient was not confined to bed. On the sixth day the temperature rose to 100·4°, in the evening to 101°, and he complained of pain in the right testicle. The orchitis rapidly increased, until the testicle was three times its normal size. In three days the parotid swelling had diminished, but the high temperature and other feverish symptoms continued, and, in spite of salicylic treatment, delirium appeared at night, with extreme loquacity during the day. He had not slept since the beginning of the fever. He had been in

the habit of drinking, although not lately, and the question was whether it might not be a case of delirium from that cause. Herr Leyden was called in consultation, and considered it to be a case of epiphrastic delirium. Two grammes (31 grains) of chloral, given in two doses, half an hour apart, produced sleep at once, which lasted, with short interruptions, for twelve hours, and after which he felt nearly well. Convalescence was rapid. Herr Leyden remarked on the strangeness of such well-marked delirium in such a slight illness, saying that such cases differ from the delirium of drunks in having no tremors. The prognosis is always favourable, as chloral cures at once. Herr Fraentzel mentioned the still delirium which sometimes occurs after recurrent fever, in which patients may be suddenly seized with suicidal mania.

831. *Pel on the Diagnosis and Prognosis of Cirrhosis of the Liver.*—Dr. Schumacher, of Aix-la-Chapelle, communicates (*Deutsche Med. Wochenschr.*, March 7) a paper by Dr. Pel, of Amsterdam, on the diagnosis and progress of cirrhosis of the liver. In this disease, which presents many difficulties, the two chief diagnostic points are obstruction to the circulation in the vena portæ, and the presence of an exciting cause—e.g. alcoholic excess. But frequently the *post mortem* examination reveals appearances which were not suspected during life. Case 1, 25 years of age, and formerly quite healthy, never having indulged in alcohol to excess, was admitted on account of exudative pleurisy of the right side after pneumonia. No signs of abdominal trouble were present, and the liver was distinctly felt below the ribs. After death, advanced cirrhosis of the liver was found, with enlargement of the spleen and dilatation of the abdominal veins. Case 2, far gone in phthisis, complained of considerable emaciation for some weeks, with nocturnal rise of temperature to 40° C. (104° F.), diarrhoea, and severe abdominal pain. The abdomen was very tender even on superficial palpation, meteorism was present at the upper part, dullness, varying with position, at the lower, and fluctuation was distinct. At the necropsy advanced cirrhosis of the liver, with ascites, was found instead of the expected tubercular peritonitis. The signs of portal obstruction in cirrhosis, once established, scarcely ever disappear entirely, although they may diminish somewhat. Nature, however, sometimes cures even those. Case 3, given to alcohol, not syphilitic, and in a state of health otherwise satisfactory, fell ill with disturbance of the appetite and of the bowels. In four weeks first the abdomen and then the legs began to swell, and on admission to the hospital there was considerable distension of the abdomen, with no appreciable enlargement of the liver and spleen. The lungs and heart were normal. Three distended veins lay between the umbilicus and the right epigastrium; no tumour could be made out; dullness on percussion varied with position, and the secretion of urine was only 250 to 500 c.c. daily. The specific gravity was 1023 to 1025, and it contained urates and much indican, but no urobilin, the excess of which has been said to be pathognomonic of cirrhosis. A month after admission the conditions were so much worse that the end seemed near; but two weeks later the urine increased to 2200 c.c., the ascites began to diminish, and, in spite of a sero-fibrinous exudation into the pleura, the patient left the hospital perfectly well two months and a half after his admission. Although this case was not

verified by a necropsy, the only symptom that did not indicate cirrhosis was the absence of urobilin.

ALICE KER, M.D.

832. *Allexich on Epidemic Parotitis.*—The author says (*Gazz. Med. Ital. Prov. Veneta*, March 31, 1883) that the evident analogy of parotitis to the acute exanthemata, its frequent development in the course of these, or during the various other morbid processes due to acute infection, lead us to conclude that the causal connection between it and the above-named diseases exists in the alteration of the blood-crisis by a specific infecting virus. The inflammation of the parotid is in these cases secondary, and, together with other local manifestations due to the original malady, furnishes an additional proof of blood-poisoning from the introduction into the organism of parasitic life. Epidemic parotitis is etiologically identical with this form of parotid inflammation, and, like it, is due to an infecting virus; only by a simple local alteration it shows the character of the prevailing epidemic. Parotitis never diffuses itself in a population unless at the same time, and in the same district, some other disease becomes developed in the epidemic form. Parotitis, which occurs as a complication in the course of almost all infectious maladies, may appear while they are epidemic; and, while different transitory morbid causes determine grave maladies (differing according to the specific virus), and leading to a great mortality, in the same time and place other organisms more fortunate, under the same malefic infecting influence, are not seized with the malady which should result from it, but from a milder form (parotitis). The proofs given by O. Weber that erysipelas and hospital gangrene may cause by their exhalations tumefactions of the parotid; the knowledge that where parotitis is endemic other endemic maladies presenting an infective character prevail; the fact of having found that parotitis is developed in the epidemic form only when another acute infectious disease is rife, lead the author to believe that epidemic parotitis is determined by a special infecting virus, which in every organism gives rise to the same morbid form, but which may be manifested in the course of epidemics of all acute infectious diseases in those subjects who, from special circumstances, having the faculty of resisting the true infection, cannot altogether elude its influence. Cynanche parotidea, then, may be rubeculous, scarlatinal, variolous, &c., as it is developed under the influence of one or other of these epidemics, and it would especially accompany them in the spring and autumn, when the damp, cold, and atmospheric changes would render the parotid more liable to be affected.

833. *Rendu on Acute Pericarditis.*—Dr. Rendu thus summarises (*Rivista degli Ospitali Civili di Genova*, and *Gazz. Med. Ital. Prov. Veneta*, March 21) the symptoms of great pericardial effusions requiring surgical interference.

1. The increase of precordial dullness is a sign of great value, especially downwards towards the diaphragm.
2. Signs of pulmonary compression, exaggerated vibration, indicate distension of the pericardium backwards towards the posterior mediastinum.
3. Edema of the precordial parietes, accompanied often by dilatation of the superficial veins of the thorax, shows an impediment to the parietal circulation.
4. Lastly, the 'pulsus paradoxus' is a less con-

stant sign, which by itself has no absolute value, but which is most frequently observed when the expansion of the heart is hindered by a large pericardial effusion.

He concludes that the temperature is no guide, contrary to the rule in acute disease. He insists on the necessity of operation when dyspnoea, cyanosis, and the distress of the patient make suffocation appear imminent. He prefers direct puncture of the pericardium with the aspirator to making a preliminary incision, because of the risk of setting up suppuration of the wound. As to the site of puncture, he says that, considering that the liquid always accumulates at the base of the pericardium, towards the diaphragmatic region, he asserts the lowering of the gastric sonority is the best indication of the limit of the collected fluid, and, as the heart is drawn upwards and backwards, however little the diaphragm is lowered, there remains between the apex and the diaphragm an appreciable space. In this point, then, the puncture will be most safely made. In one of his patients he punctured the pericardium in the sixth intercostal space, eight centimetres from the sternum, in the mammary line, and was astonished at the simplicity of the operation. To the objection that the pleura or lung might be injured, he replies that by the pathological conditions of the pericardium the edge of the lung is displaced, and little harm could be done to the pleura with the aspirating needle.

834. *Torre de la Abela on Trichinosis in Malaga.*—The author describes (*La Clinica de Malaga and El Sentido Catol.*, April 8) an epidemic of trichinosis which, at the time of the report, had affected twenty-five individuals and caused three deaths. All the cases presented well-marked symptoms, such as have been observed in other epidemics. Prolonged salting and fumigation of the meat is not sufficient to destroy the parasites; the meat should be thoroughly cooked; in this opinion he is in accord with all observers. The treatment is unsatisfactory. Purgatives, especially calomel, are first given. By this means, the parasites which may be in the intestinal canal are expelled. After their migration to the muscles, no remedy seems to affect them. The general treatment consists in giving tonics and liberal diet. He finds digitalis especially useful as a cardiac tonic. The pulse is a good guide to the gravity of the case: it often becomes quick, irregular, and very weak, without any great rise of temperature.

G. D'ARCY ADAMS, M.D.
835. *Nothnagel on Diabetic Coma.*—An interesting case of coma in association with diabetes and nephritis is reported (*Allgem. Wien. Med. Zeit.*, No. 10, 1883) from the clinic of Professor Nothnagel. The patient—under treatment for metrorrhagia, with polyuria and albuminuria—suddenly became comatose, with dyspnoea. The heart and lungs were found healthy. There had been no previous symptoms of uræmia. The urine, tested by Lieben's method—viz. treated with iodide of potassium in the presence of caustic potash—gave the characteristic odour of iodoform, indicating the presence of acetone. In his remarks upon the case, Professor Nothnagel pointed out that dyspnoea in association with diabetic coma has been well described by Kussmaul and Frerichs; sometimes occurring with enfeebled cardiac action, and sometimes with a series of initial symptoms of disturbance of digestion or respiration: in such cases acetonæmia has generally been easily diagnosed from the odour

of acetone in the breath, or from its presence with aceto-acetic acid in the urine. From recent experiments, however, it may be considered to be proved that neither of these substances is the direct cause of the condition induced, but that they must both be regarded as products of the decomposition of some hitherto unknown chemical substance. Other possible causes for the dyspnoea may be looked for in the changes in the kidney, producing a form of uræmic coma, or in the occurrence of fat-embolism. So long, however, as the chemical changes in the blood remain unexplained, no rational treatment can be employed.

836. *Bamberger on Biliary Cirrhosis of the Liver.* Professor Bamberger (*Allgem. Wien. Med. Zeit.*, No. 49, 1882), enters into the clinical aspects and the diagnosis of this form of cirrhosis, and brings forward a case in illustration of it. The patient had suffered for two years from jaundice, with some general wasting, but no local pain: the urine was deeply coloured, and the stools always light, and at times quite colourless. Distinct enlargement of the liver could be felt, and at one point distinct puckering of the right lobe. The spleen was also enlarged. There was no ascites whatever. The occasional appearance of bile in the motions proved that the obstruction was not complete. In considering the diagnosis of such a case, he rejects fatty and amyloid liver at once. Carcinoma of so long duration, with only partial wasting, would be unlikely. Continued catarrh of the biliary passages gives rise to concretions and to pain. Simple cirrhosis might be diagnosed, were it not for the absence of ascites. A form of cirrhosis, however, exists which is unaccompanied by ascites, viz., biliary cirrhosis, a form which has its origin in the biliary passages alone. It may be induced by catarrh, followed by concretions, but consists essentially of an overgrowth of connective tissue about the ducts. Hence the important and indicative symptom is the jaundice, ascites being only a secondary phenomenon. The prognosis as to the duration of such a case is uncertain, and the treatment must tend in the direction of facilitating the flow of bile and of regulating digestion by diet and by natural alkaline waters.

837. *Schrötter on Musical Cardiac Murmurs.*—As a result of observations extending over a considerable period of time, Professor Schrötter communicated to the Vienna Medical Society (*Allgem. Wien. Med. Zeit.*, No. 1, 1883), his views on the causation of musical murmurs heard over various parts of the heart's area. Following Hamernik, he regarded the fine, musical, high-pitched note sometimes observed over the left ventricle as due to the abnormal tension of one or more chordæ tendineæ, and demonstrated in illustration thereof the heart of a man of 40, in which a fine tendinous thread traversed the cavity of the left ventricle. In some other cases, however, viz., those of musical murmurs heard over the aortic area, similar conditions have been observed, especially in perforated aortic valves, a thin tendinous thread corresponding to the free edge of the valve being left free to vibrate in the current of blood. Such perforated valves are not uncommon, but it is only in the cases where the thread-like margin is able to be vibrated that the musical sound is produced.

E. CLIFFORD BEALE, M.B.

838. *Sansom on the Treatment of Some Forms of Valvular Disease of the Heart.*—Dr. Sansom, in the *Brit. Med. Jour.*, Feb. 1883, p. 243, continues his Lettsomian Lectures, the subject of the third lecture,

being mitral stenosis. Viewing the mitral aperture from the auricle, there are noticed in organic disease the 'button-hole' orifice and the 'funnel-shaped' orifice, the latter being much the rarer form. Upon the left auricle the consequences of mitral stenosis are very manifest. It is usually not only dilated, but hypertrophied. The murmur of mitral stenosis occupies the diastolic period, and ends suddenly; the murmur of mitral regurgitation is systolic in time, and never ends abruptly. In a few cases, the murmur of mitral stenosis may be simulated by that of aortic regurgitation, when this is conducted towards the apex. Reduplication, or a seeming reduplication, of the second sound is to be noted in at least one-third of the cases of mitral stenosis, and only rarely in other conditions. A third sign of importance in establishing the diagnosis of mitral constriction is thrill, which is praesystolic in time. The observations on the pulse in mitral stenosis are somewhat contradictory. Dr. Sanson finds the pulse, as a rule, notably irregular. The evidence afforded by the cardiograph when mitral stenosis is suspected is very valuable. As to the clinical evidence of the origin and course of the morbid changes which bring about the obstructive lesion, Dr. Sanson thinks that it is associated with the less pronounced forms of rheumatism, with those insidious cases in which the articular affections are not marked. As to treatment, in many cases, rest, combined with the administration of nutrients and tonics, with digitalis, have restored the condition formerly existing for a considerable period. Also the repeated abstractions of small quantities of blood are very valuable in mitral stenosis. The tension of the right heart may be sensibly relieved even by a leech or two applied over the pericardium. Embolism in some sort is a source of danger, to be considered in a large proportion of cases of mitral stenosis.

839. *Whipham on Erythematous Eruption in Enteric Fever.*—Dr. Whipham (*Brit. Med. Jour.*, April 1883, p. 771) recorded two cases at a meeting of the Clinical Society of an eruption resembling that of scarlatina occurring in patients who were also affected with ulceration of Peyer's patches. One case was that of a man aged 36, who was admitted with a bright erythematous rash on the trunk, legs, and arms, and complained of sore-throat and headache. At first there was constipation, but a purge was given, and diarrhoea then continued until patient died, death taking place four days after admission. *Post mortem* examination showed ulceration of Peyer's patches, but there had never been any typhoid eruption. The second case occurred in a child aged 4 years, who was admitted with a brilliant erythematous rash over the body. Ten days after admission characteristic spots of typhoid fever appeared, and in nine days the child died; *post mortem* examination showing extensive ulceration of Peyer's patches, with swelling of mesenteric glands. A discussion ensued, and Dr. Broadbent said that, when a scarlatin rash came out in a case of enteric fever, he regarded it as an evidence of concurrence of the two diseases.

840. *Mackenzie on the Pathology of Diabetes.*—Dr. Stephen Mackenzie, in the *Brit. Med. Jour.*, April 1883, p. 655, opens a discussion on the pathology of diabetes, paying special attention to diabetic coma. In the author's experience coma and phthisis are the two most common modes of termination of diabetes. Nearly all cases that die, below the age of twenty-five, die from coma. The mean duration of

cases that die from coma is much less than of those that die from other causes. The mode of onset of the coma is noted, and its special features enumerated, the breathing being described as an 'air-hunger.' Dr. Mackenzie says that, though acetone has been detected in some cases of diabetic coma, it does not appear to be present in any considerable quantity in many, and the evidence is against it being a general explanation of the coma; but he considers that intoxication by some such poison, with a special affinity for the sympathetic system, developing in the tissues or blood, is the most likely direction in which we shall have to search for the cause of diabetic coma. Dr. Mackenzie agrees that Dr. Hilton Fagge's theory of the dehydration of the blood, as an explanation of the coma, deserves further consideration.

841. *Crowfoot on Simulated Scarlet Fever.*—In the *Brit. Med. Jour.*, April 1883, p. 729, an article is given on simulated scarlet fever, and reference made to a recent report by Mr. Crowfoot, the health-officer at Beccles, where an eruptive disease existed, very similar in some respects to scarlet fever; the rash and initial fever were the same as in scarlet fever, but there was no desquamation of the cuticle nor any enlargement of the cervical glands. Convalescence was rapid, and no sequelae followed any of the cases. [Some very instructive papers were published in the *Brit. Med. Jour.*, Jan. 1879, pp. 11, 75, and many articles bearing further on the subject are noted in section 1631:5 of the *Medical Digest.*—*Rep.*]

842. *West on Purulent Pericarditis treated by Paracentesis and by Free Incisions, with Recovery.*—Dr. Samuel West, in the *Brit. Med. Jour.*, April 1883, p. 814, reports a case of a boy, aged 16, who had pericardial effusion. The symptoms became so urgent that paracentesis was performed, and pus was discharged. Three days later paracentesis was again performed, and subsequently the pericardium was laid freely open, washed out, and a drainage tube inserted. The temperature never rose, and the boy recovered completely in five weeks. A discussion ensued, and Dr. West briefly related the history of the operation from its first suggestion by Riolan in 1649. [A similar case is noted in the *Medical Digest*, Sec. 760:3, performed by Dr. Rosenstein, the first recorded, an account of which appeared in the *Med. Times and Gazette*, March 1881, p. 323.—*Rep.*]

843. *Allen on Bilharzia Haematobia.*—Dr. Allen, of Pietermaritzburg, in the *Lancet*, April 1883, p. 660, draws attention to a report of a meeting of the Royal Medical and Chirurgical Society, which appeared in the *Lancet*, November 18, 1882, in which Dr. Cobbold refers to a letter (see *Lancet*, July 15, 1882) from Dr. Allen on the subject of Bilharzia haematobia. Dr. Allen recommends the use of injections into the bladder of a saturated alcoholic solution of santonin. This plan, Dr. Cobbold states, is too heroic, but there seems to be a difference of opinion on the subject, which experience can only settle.

RICHARD NEALE, M.D.

844. *Sée on the Pulmonary Complications of Erythema Nodosum.*—M. Germain Sée (*Le Progrès Méd.*, Nos. 15 and 16, 1883) reports five cases of erythema nodosum, complicated by pulmonary accidents, and formulates the following conclusion. 1. Erythema nodosum is a specific fever analogous to the eruptive fevers, and not a cutaneous manifestation of rheumatism. 2. This fever, generally benign, may (like the eruptive fevers) be complicated by disorders of the respiratory apparatus. 3. Pleurisy is the more frequent complication, but broncho-

pneumonia has also been observed. 4. This pleurisy does not appear to present any special characters. 5. Nevertheless, in the only fatal cases, it is noteworthy that it was distributed in successive and distinct patches; the fibrinous exudation was abnormally thick and abundant, while the fluid was small in amount. 6. These accidents are ordinarily of not unfavourable prognosis, but in two cases death was the consequence. 7. These complications are not rheumatic, but depend directly on the specific nature of the disorder.

845. *Cornillon on Hæmatemesis from Washing out the Stomach.*—Kussmaul, Bucquoy, and Broca recommend washing out the stomach by the long tube in cases of simple chronic gastric ulcer. Germain Sée is opposed to this practice from the risk of producing hæmorrhage and of tearing the base of the ulcer. Cornillon of Vichy reports a case (*Le Progrès Méd.*, No. 17, 1883) in which severe hæmatemesis was so produced; but he maintains that the practice is good in old standing cases, if care be taken not to raise the funnel above the head, and not to pour into the stomach more than half a litre ('880 pint) of water.

846. *Kinnicutt on Purulent Inflammation of all the Great Serous Cavities.*—Kinnicutt (*New York Med. Record*, April 21, 1883) records the case of a well-nourished male, aged 21, who was admitted into hospital after ten days' illness, with respiration 40, pulse 138, temperature 104°·8°, and dullness on percussion with distant breathing over the lower three-fourths of the left side of the chest. On the following day the signs of pleural effusion had increased, and 16 ounces of creamy pus were removed by aspiration. The heart-sounds were feeble, the impulse was absent, but the area of cardiac dullness could not be defined, owing to the pleural effusion; nevertheless, pericardial effusion was suspected. Aspiration was repeated the following day with the same result, but without improving the patient's condition. He died on the sixth day after admission. At the necropsy there was no skin-eruption, nor œdema. The pelvic peritoneum was congested, and there was a small amount of pus and lymph in this situation. The right pleural cavity contained 22 ozs. of sero-fibrinous fluid; the left pleural cavity 74 ozs. of sero-pus. The right lung was congested and œdematous; the left lung was collapsed, airless, and covered with recent lymph. The pericardium contained 6 ozs. of fibrinous sero-pus; the surface of the heart was covered with recent lymph; the muscular wall and valves were apparently normal. The brain was not examined. With the exception of slight excess of fat in the liver, the other organs were healthy. Microscopic examination showed only cloudy swelling of the renal epithelium, and fatty degeneration of the cardiac muscle. There was no evidence of any source of septic infection, nor of any of the acute infectious diseases, or rheumatism; chronic Bright's disease was also quite excluded by the result of the *post mortem* examination.

847. *Capitan on Albuminuria in Healthy Persons.* Capitan (*Recherches Expérimentales et Cliniques sur les Albuminuries Transitoires*, Paris, Delahaye, 1883) examined the urine of 100 healthy soldiers; of these 20 showed a trace of albumen, 22 an uniform or retractile cloud. Of 92 children, 38 showed definite traces of albumen.

848. *Duguet and Derignac on the Pharyngeal Complications of Typhoid Fever.*—Duguet (*Le Prog. Méd.*, No. 19, 1883), at a recent meeting of the

Société Médicale des Hôpitaux, gave an account of the various forms of throat-affections which he had met with during the recent epidemic of typhoid fever in Paris. The most common and the earliest and the slightest is the simple erythematous angina, which sometimes manifests itself before any other sign of the fever. Erysipelatous angina, which may resemble the preceding at first, is much more grave by giving rise to serious œdema of the palate pharynx and aryteno-epiglottidean folds. Such cases may, besides the risk of asphyxia, give rise to ulcerations, abscesses, &c. The ulcers of the throat appear early in the disease; they are generally situated on the anterior pillar, are oval in shape and superficial, like a large aphthous ulcer surrounded by a red zone. These ulcers are of no prognostic significance, occurring alike in severe and mild cases. In Derignac's cases the ulcers were deeper, but in other respects they were the same. They may develop without giving rise to any symptoms, or they may cause pain and dysphagia. Sometimes they do not heal, but give rise to graver troubles, erysipelatous angina, abscess, &c.

849. *Charcot on Cervical Pachymeningitis.*—Charcot (*Le Prog. Méd.*, No. 19, 1883) describes a case of paralysis due to cervical pachymeningitis. He points out that such cases pass through three stages; 1, the neuralgic period, characterised by severe pains and sense of constriction in the chest, a stage which lasts four, five, or six months; 2, the paralytic period in which paralysis occurs, accompanied by muscular atrophy; and 3, the spasmodic period, in which the lower limbs are affected by a spasmodic paraplegia, the result of a transverse myelitis with descending degeneration of the lateral columns. The pathology of this affection is an inflammatory thickening of the dura mater, which may involve to some extent the nerves passing through it and the adjacent end, but in the main the symptoms are due to the compression of the inflamed membrane. Such cases occur independently of any diathesis or specific cause, often as the result of living in a damp place. Ultimately recovery may take place; in the case quoted this occurred partly spontaneously, partly as the result of treatment which chiefly consisted of the actual cautery over the seat of the disease. Afterwards there remained great contraction of the ham-string muscles, but these were divided subcutaneously, and by electricity and friction the patient recovered so far that he could walk about the courts of the hospital and go a mile without great fatigue.

850. *Charcot on Double Sciatica in a Cancerous Patient.*—Charcot (*Le Prog. Méd.*, No. 18, 1883) in a recent clinical lecture, described the case of a woman, aged 61, operated on several times for scirrhus of the breast, who developed severe double sciatica, together with pain in the regions of both anterior crural nerves; the pains were exasperated by the erect position, so that walking was impossible. There was tenderness in the lumbar and sacral region of the spinal column; there was no muscular atrophy, alteration of reflexes, or disturbance of the functions of the bladder or rectum. Double sciatica is always symptomatic, a statement which does not deny that unilateral sciatica may be also. The causes of double sciatica are (a) diabetes, but in this the urine was free from sugar; (b) certain spinal affections, locomotor ataxy and meningo-myelitis, but which would present symptoms that were absent in this case; (c) some alteration in the nerves them-

selves. This would be most readily accounted for by cancerous invasion of the vertebral column causing pressure on the nerves; as there was no evidence of any tumour in the pelvis. Secondary cancer of the spinal column was held by Cazalis to be very common, especially after scirrhus of the breast, but it may also be found in those affected with cancer of the stomach. The presence of double sciatica should contra-indicate operation for tumours of the breast, as metastasis may be inferred. Intense neuralgia in patients at the age for cancer should suggest careful examination of the breasts, the stomach, and the uterus. Pseudo-neuralgic pains are the ordinary clinical signs of vertebral cancer; but a fungous mass may project from the spine, in which case the vertebrae are infiltrated, and the consequences will be similar to those of Pott's disease.

851. *Magnan on Verbal Deafness.*—Magnan (*Le Progrès Méd.*, No. 20, 1883) has related to the *Société de Biologie* the history of a patient who was aphasic, and latterly was affected by verbal deafness. He could not speak or understand words, but he was not absolutely unintelligent; he took pleasure in reading the papers, and understood signs. He could also read handwriting. Thus, when 'thief' was written after his name, he rubbed it out and wrote a less injurious appellation. At the necropsy there were found diffuse sclerosis of the third left frontal convulsion and the island of Reil, and a focus of softening occupying the first and second temporal convolutions.

852. *Burger on Addison's Disease.*—Burger (*Allgem. Med. Central-Zeitung*, March 14, 1883) arrives at the following conclusions. 1. The suprarenal capsules are blood-forming glands, and have no important vital functions. 2. They do not stand in any causal relation to the pigmentation of the skin, which occurs not only in Addison's disease but in cachexia. 3. All varieties of disease of the capsules may be met with in Addison's disease. 4. Addison's disease depends eventually upon disease of the semilunar ganglia and solar plexus, which is most often caused by disease of the capsules, generally tuberculosis, but may have other causes, or be idiopathic.

853. *Ballet and Dutil on Trophic Disturbances of the Skin in Tabes.*—MM. Ballet and Dutil report (*Le Progrès Méd.*, No. 20, 1883) from the service of M. Charcot and his colleagues three cases of a sort of ichthyosis of the skin of the anæsthetic or hyperæsthetic regions in tabes. The skin was usually reddened, lax, thrown into folds, and the epidermis was increased in amount and sometimes desquamating. They summarise these results in the following propositions. 1. In tabes we may observe permanent trophic disturbances of the cutaneous system. 2. These trophic disturbances are very different in appearance and evolution from those hitherto described. The skin-eruptions (herpes, &c.), ecchymoses, and even perforating ulcer, are the effects of simply transient and accidental phases. Ichthyosis is, on the contrary, a dystrophy of slow evolution, apparently progressive, like the lesions of bone. 3. This dystrophy is manifested by a kind of thickening of the skin, with more or less deepening of its colour, laxity of the integuments, desquamation of the epidermis, the *débris* of which sometimes accumulate so as to form true scales on the surface of the skin. 4. The regions in which these changes are observed are also those in which marked disturbances of sensa-

tion may be found, lightning-pain, anæsthesia, hyperæsthesia, to cold, to pricking, sometimes to simple contact. The extremities are the parts generally attacked. The skin of the back of the hand may come to resemble the skin in pellagra. 5. The loss of the nails and their alterations, as described by Joffroy, Pitres, Roques, and Dorneaux-Juron, seem to be examples of this cutaneous dystrophy, affecting the matrix of the nail.

ROBERT SAUNDBY, M.D.

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

854. ALBERTONI.—On the Hypnotic Power of Paraldehyde. (*Riv. di Chim. Med. e Farmaceutico-tossico e Farmaco.*, Feb. and March, 1883.)

855. KOVIGIL.—Inhalations of Sea-water Spray in Chronic Affections of the Respiratory Apparatus. (*Gazz. degli Ospitali*, April 11 and 15, 1883.)

856. UNNA.—On Ichthyol. (*Deutsche Med. Zeitung*, No. 17, 1883.)

857. CURRIE.—Chian Turpentine in Cancer. (*Edin. Med. Jour.*, May 1883.)

858. BURQ.—The Immunity of Copper-workers from Infectious Diseases. (*Ibid.*, No. 17, 1883.)

859. AUBERT.—Injections of Atropine and Morphia in Anæsthesia. (*Le Progrès Méd.*, No. 17, 1883.)

860. PACZKOWSKI.—On Hydrochlorate of Fuchsaniline in Scatular Nephritis. (*Przeglad Lekarski*, No. 8, 1882.)

861. WOITEKEWICZ.—On Salicylate of Soda in Diabetes. (*Wiadch.* No. 43, p. 730, 1882.)

862. KAZANSKY, E. P.—On the Treatment of Pulmonary Phthisis. (*Wiadch. Pedomosty*, No. 331, 1882, pp. 3551-4, and No. 533, pp. 3382-4.)

863. JUK.—On the Action of Convallaria Majalis. (*Proceedings of the Kielt Medical Society*, Fasc. 1, 1882.)

864. BRUNNER, M.—On the Disappearance of Erysipelas after Hypodermic Injection of Morphia. (*Medycyna*, No. 7, 1882.)

865. SZREIBER, O.—On a Case of Lupus Treated and Cured by Iodoform. (*Gazeta Lekarska*, No. 27, 1882.)

866. BABAIEFF.—On Chloral in Dental Caries. (*Proceedings of the Caucasian Medical Society*, No. 11, 1882.)

867. DE SANCTIS.—Quinine in Large Doses in Typhoid Fever. (*L'Imparsiale*, March 7, 1883, and *Gazz. Med. Ital. Prov. Venete*, March 31.)

868. CERVELLO.—On the Physiological Action of Paraldehyde. (*Il Fisan*, Disp. iv., v., vi.)

869. MORELLI, Prof.—On the Hypnotic and Sedative Action of Paraldehyde. (*Il Fisan*, Disp. iv., v., vi.)

870. COMIN.—Purpura Hæmorrhagica from Quinine. (*El Siglo Médico*, April 15.)

871. The Treatment of Phthisis with Iodoform. (*Lo Spallanzani*, Jan. and Feb. 1883.)

872. BONATTI.—New Therapeutic Application of Chloral-Hydrate. (*Gazz. Med. Ital. Prov. Venete*, April 7.)

873. SAWYER.—The Therapeutic Uses of Oleates. (*Brit. Med. Jour.*, February, p. 250.)

874. GRANVILLE.—A Prescription for Acute Rheumatism. (*Ibid.*, April, p. 663.)

875. CARSON.—The Treatment of Carbuncle. (*Brit. Med. Jour.*, April 1883, p. 750.)

876. PRITCHARD.—Belladonna as a Prophylactic against Scarlet Fever. (*Lancet*, April, p. 666.)

877. CHAPMAN.—Is Distilled Water always the best Vehicle for Eye-Lotions? (*Practitioner*, May, p. 354.)

878. HAY.—The Value of some Nitric, Nitrous, and Nitro Compounds in Angina Pectoris. (*Practitioner*, May.)

879. SHEEN.—Nitrite of Amyl and Nitroglycerine in Uræmic Asthma. (*Brit. Med. Jour.*, April, p. 811.)

880. DRESCHFELD.—The Treatment of Phthisis by Iodoform. (*Brit. Med. Jour.*, April, p. 817.)

881. HAY.—The Use of Concentrated Solution of Saline Cathartics in Dropsy. (*Lancet*, April, p. 678.)

882. LEWIN.—The Use of Santonin. (*Deutsche Med. Wochens.*, March 21.)

883. ANDRESSE.—Perchloride of Iron in Diphtheria. (*Deutsche Med. Wochens.*, March 14.)

884. BURKE.—Abdominal Inunction during Pregnancy. (*New England Med. Monthly*.)

ART. 854. *Albertoni on Paraldehyde*.—The author's observations, though pretty numerous, were made on only seven insane patients. The conclusions arrived at confirm, in the main, those previously reached by Cervello and by Morselli. Paraldehyde is to be preferred to chloral, because it does not lower the blood-pressure or disturb the circulation. On the other hand, however, it is inferior to chloral in intensity of action, and the patient sooner becomes accustomed to it. The dose given varied from 3 to 9 grammes. High doses, however, 8 or 9 grammes for example, were preferred.

855. *Rovighi on the Inhalation of Sea-water*.—The author finds the inhalation of sea-water spray of great value in chronic affections of the lungs.

WILLIAM R. HUGGARD, M.D.

856. *Unna on Ichthyol*.—Unna (*Deutsche Med. Zeitung*, Nov. 17, 1883, and *Monatsschr. für Prakt. Dermat.*, Nos. 11 and 12, 1882) has used with great success a new bituminous substance containing a large amount of sulphur, and to which the name of ichthyol is given. It is partially soluble in alcohol and ether, and perfectly soluble in these combined. He recommends its use (10 per cent. with vaseline) to paint on the joints in acute rheumatism, which should then be wrapped in wadding; he says it gives immediate relief from pain. He uses stronger ointments (20 to 30 per cent. in vaseline) in chronic rheumatism, lumbago, and neuralgia. He recommends it to be inhaled with steam, a tablespoonful to one or two litres of water; or to be sprayed on the throat, 5 per cent. dissolved in equal parts of ether and alcohol. He uses 1 per cent. watery emulsion in the early stages of gonorrhœa as an urethral injection, and he thinks very highly of it in eczema in 50 per cent. ointment with vaseline for adults, and 20 per cent. for children. In nascent eczema he begins with 20 per cent., and later on uses 10 per cent. He has found great advantage in obstinate eczema from an ointment made by boiling 10 parts of litharge with 30 of vinegar until 90 parts remain, and then adding 10 parts each of olive-oil, lard, and ichthyol.

857. *Currie on Chian Turpentine in Cancer*.—Currie (*Edin. Med. Jour.*, May 1883) speaks favourably of Chian turpentine, which he has used in one case of duodenal cancer, and in several cases of cancer of the uterus. In only one case was the effect negative, and then it was doubtful if the patient took the medicine regularly. In all the other cases it gave marked relief from pain, while the cachexia disappeared and the general health improved. There was no influence observed on the progress of the cancer, the effect of the drug being mainly anodyne.

858. *Burg on the Immunity of Copper-workers from Infectious Diseases*.—Burg (*Le Progrès Méd.*, No. 17, 1883) says that he demonstrated statistically, a long time ago, the immunity of workers in copper during cholera epidemics. His inquiries have shown that during the recent epidemic of typhoid fever in

Paris only two copper-workers have died. Moreover, in a society composed of three or four hundred copper-workers, which has existed for sixty years, only one member has died of an infectious disease, and that was small-pox. Burg suggests that these facts indicate an antagonism between salts of copper and the specific micro-organisms of infectious diseases, and he would give copper salts in large doses, such as Ducroz and Galippe have shown to be innocuous.

859. *Aubert on Injections of Atropine and Morphia in Anæsthesia*.—Dr. Aubert, of Lyons, recommends (*Le Progrès Méd.*, No. 17, 1883) the hypodermic injection of atropine and morphia a quarter of an hour before the administration of ether, to facilitate and expedite the anæsthesia. M. Brown-Séquard expressed his concurrence in the views expressed of the advantages of the method.

ROBERT SAUNDY, M.D.

860. *Paczkowski on Fuchsine in Scarlatinal Nephritis*.—In the *Przeglad Lekarski*, 1882, No. 8, Dr. Paczkowski asserts that fuchsine (*fuchsanilinum maritimum*) in daily doses, 0.05 to 0.25 gramme, given two or five days successively, invariably cures inflammatory process in the kidneys of scarlatinal patients. The author succeeded, also, in curing two cases of chronic Bright's disease by the administration of 0.2 to 0.25 gramme of the drug (in pills or solution) during a few weeks. Considerable relief of the symptoms was obtained in a third instance of the affection. [Papers on the use of fuchsine in nephritis may be found in the LONDON MEDICAL RECORD, Feb. 1881, p. 54 (Sawyer), March, p. 100 (Bertet), and May, p. 190 (Budde).] Like Drs. Bergeron, Clouet, Bouchot, Devet, and J. Sawyer, Professor Renzi, of Genoa, thinks favourably of the action of fuchsine in chronic nephritis (Virchow's *Archiv.*, 1880, vol. lxxx.). Professor Bamberger, also, saw a decrease in the excretion of albumen in two patients (*Wiener Med. Blätter*, April 7, 1881). Dr. A. M. Dochman, from a series of clinical observations, deduced the conclusion that fuchsine is to be recognised as one of useful symptomatic remedies in the treatment of Bright's disease. He administered the following formula: \mathcal{R} Fuchsin ab arsenico depurati gr. j., sacch. albiss. gr. v. M. f. p. S.: two to four powders a day. (*Pratch*, 1881, No. 11, p. 169.) On the other hand, Dr. Mölenfeld, in the *St. Petersburg Med. Wochens.*, 1881, No. 24, obtained only negative results from the drug in his two cases of chronic parenchymatous nephritis.—*Rep.*

861. *Woitekewicz on Salicylate of Soda in Diabetes*. The favourable results obtained by Ebstein, Muller-Warneke, Wiktor, and Latham (see the LONDON MEDICAL RECORD, April 1881, p. 144), induced Dr. Woitekewicz (*Pratch*, 1882, No. 43) to try salicylate of soda in a case of diabetes (seemingly of malarial origin). He gave from one to three drachms a day, in solution. The administration was resumed three times. Each time a marked decrease, and at last even a temporary disappearance, of sugar from the urine was observed.

862. *Kazansky on the Treatment of Pulmonary Phthisis*.—In a paper dedicated to this subject, in the *Pracheb. Vedomosti*, 1882, Nos. 531 and 533, Dr. E. P. Kazansky insists on the importance of the antiseptic treatment of consumption. He recommends that the patient's room should be converted into a disinfectant chamber. This is best obtained by impregnating the air with the vapour of a mixture of turpentine and benzene (four parts of

turpentine to one of benzine) placed in dishes or sprinkled over the floor. Rather less effective, but still valuable, is the use of oil of eucalyptus dissolved in alcohol (one to ten) mixed with water (a teaspoonful of the alcoholic solution to half a tumbler) and diffused through a room by means of a pulverisator. The author also finds benefit in the removal of consumptive patients to fir-forests, as well as in the internal administration of turpentine, tar, &c. Inunctions of sulphur over the affected side of the chest are eulogised by him as a remedy for night-sweats and as a good expectorant. Like Dr. R. Saundby (see the LONDON MEDICAL RECORD, Dec. 1881, p. 501), Dr. Kazansky decidedly repudiates the use of opium and morphia in phthisis. Of narcotics, he employs only preparations of hyoscyamus and chloral. In common with Dr. Ordylowski (*vide* the LONDON MEDICAL RECORD, Jan. 1881, p. 12) he finds chloral of good service for allaying troublesome cough in consumption, and usually administers one or two tablespoonfuls of a solution of half a drachm to four ounces.

863. *Juk on Convallaria Majalis*.—Dr. Juk (*Proceedings of the Kieff Med. Society*, 1882, Fasc. 1) details four cases, and arrives at the following conclusions. 1. The aqueous extract of convallaria is useful in nervous disturbances of the heart's action. 2. It does not give any constant and positive results in cases of heart-disease with disturbed compensation. (It is well to add that, of the author's four cases, compensation was absent only in one patient.) 3. It does not increase the amount of urine. [Almost all other observers state that it does; see Professor Scé's paper in the *Bulletin Gén. de Thérapeutique*, July 30, 1882, and in the *Brit. Med. Jour.* Feb. 24, 1883, p. 368; Bianchi's in the LONDON MEDICAL RECORD, March 1883, p. 85; Troitzky's, *Ibid.*, April, p. 121. Still Dr. Juk stands not alone; the diuretic action of convallaria is denied, also, by Dr. Stiller, in the *Pester Med. Chir. Presse*, 1882, Nos. 47 and 48.—*Ref.*] 4. The heart's action becomes slower and more regular soon after the administration of a dose, and for this reason the extract of lilies of the valley may be used as a temporary sedative. 5. Convallaria does not possess any cumulative action, neither does it interfere with digestion.

864. *Brunner on the Disappearance of Erysipelas after Hypodermic Injection of Morphia*.—In the *Medecyna*, 1882, No. 77, Dr. M. Brunner reports the case of a hysterical woman, suffering from profuse flooding, in whom he injected hypodermically, above the pubes, an ordinary dose of ergotin. The injection was followed by severe pains, induration, and erysipelas, which, starting from the spot of puncture, rapidly spread upwards to the right hypochondrium and downwards to the knees. To relieve the pains and to prevent a threatening hystero-epileptic attack, the author injected under the skin three-fourths of a grain of morphia. He not only obtained the results desired, but, to his astonishment, cured also the erysipelas, which completely disappeared within two hours after the injection.

865. *Sreiber on the Treatment of Lupus by Iodoform*.—Dr. O. Szreiber records (*Gazeta Lekarska*, 1882, No. 27) the case of a peasant girl, aged 20, who for two and a half years suffered from ulcerative lupus of the whole nose and adjacent parts of the cheeks. The treatment adopted by him consisted in applying iodoform powder locally, twice a day. After a week's treatment, the affected parts were found

covered by young, healthy cicatricial tissue; there remained unhealed only a small ulcer on the right ala nasi, but even this showed good active granulations. The improvement was so rapid and striking as to lead the author to the opinion that iodoform is a specific for lupus. [Of a similar opinion is Dr. Riehl; see his paper on the use of iodoform in lupus in the LONDON MEDICAL RECORD, 1881, Nov., p. 458.—*Ref.*]

866. *Babaiëff on Chloral in Dental Caries*.—Dr. Babaiëff (*Proceedings of the Caucasian Medical Society*, 1882, No. 11) emphatically recommends, as an excellent remedy for toothache from caries, the following modification of Sporer's plan. The cavity of a destroyed tooth is washed out with tepid water or $\frac{1}{4}$ per cent. carbolic solution, and then filled with a rod made of equal parts of chloral and wax. The rods are prepared by melting wax, adding crystals of chloral to the semi-fluid mass, triturating the moisture by means of a glass pestle, and subdividing the paste as required. V. IDELSON, M.D.

867. *De Sanctis on Quinine in Large Doses in Typhoid Fever*.—Professor De Sanctis (*L'Imparziale*, March 1883) notices that at present too little attention is paid to the condition of the pulse in typhoid fever, the temperature being considered all-important. He considers this a grave error. When the pulse reaches and remains at 120 or 130, although the temperature may not be more than 39.5°C. (103°F.), the prognosis is grave. There are cases in which the temperature reaches 45°C. (105°F.), the pulse 100, and the patient recovers; and, on the contrary, the temperature is at 103°F. and the pulse 128, and the patient dies. The hyperæmia is an important fact which merits attention, but the conditions of the pulse as to power, frequency, and regularity must not be neglected. He says it is bad practice, this fashion of directing the treatment to combat solely the temperature by administering large doses of quinine, &c. One ought to adopt the principle of Dujardin-Beaumez, that of 'armed expectation.' Quinine is often given, in the fashion coming from Germany, in doses of three to five grammes a day. Hardy has seen death take place suddenly and unexpectedly in typhoid fever after these doses. Dujardin-Beaumez does not think death can be attributed to the quinine, as the same thing happens occasionally when quinine has not been given. If the temperature fall naturally the patient improves; but this is not the case if the fall of temperature be owing to drugs, which exert a toxic action on the organism. The temperature is lowered by these, but the patient dies. Carbolic acid, which is much used, may produce this effect. He does not wish to forbid quinine in typhoid fever, but to limit its use to thirty or forty centigrammes a day, not with the intention of combating the infection or of lowering the temperature, but to sustain the power of the heart. And if, with the daily observation of the heart and pulse, a depression of the circulation be noted, cordials and stimulants must not be spared. Thus carefully watching the case with 'armed expectation,' with plenty of fresh air, much water, and only bread and milk through the whole course of the fever, we shall not lose our patient. In typhoid fever, death too often is to be attributed to treatment.

868. *Cervello on the Physiological Action of Paraldehyde*.—Cervello says (*Archivio per le Scienze Med.*, Vol. vi., and *Il Pisani*, Disp. iv., v., and vi.) that paraldehyde is a polymeric modifica-

tion of aldehyde, and has the formula $C_6H_{12}O_6$. It is a colourless liquid, boils at about $124^\circ C.$ ($255^\circ F.$); its specific gravity is 998 at $15^\circ C.$ ($59^\circ F.$), at $105^\circ C.$ ($51^\circ F.$) it solidifies into fusible crystals. It is soluble in eight volumes of water at $13^\circ C.$; it is less soluble in hot water, so that the watery solution, saturated at ordinary temperatures, becomes cloudy, and at $100^\circ C.$ deposits almost half of the dissolved paraldehyde. Its anæsthetic action is not preceded by a stage of exaltation. Its action is especially exerted on the cerebral hemispheres, afterwards on the medulla oblongata and spinal cord. In large doses, it paralyses the medulla, and respiration ceases, the cardiac innervation remaining unaffected, so that the arrest of the heart is a consequence only of the arrest of the respiration; by artificial respiration, the animal may be recalled to life. These are its advantages over chloral. Its dose is double that of chloral, but varies in different individuals. As much as 10 grammes may be given to an adult without causing dangerous symptoms. It is best given in water with syrup or aromatic tincture.

869. *Morselli on the Hypnotic and Sedative Action of Paraldehyde in Mental Diseases.*—In *Il Pisani*, Disp. iv., v., vi., is a short notice of a work recently published by Prof. E. Morselli on this subject. In the forms of exaltation (mania, &c.), paraldehyde acts well, and indeed it is in these cases that it seems chiefly indicated, its action being hypnotic without depressing the circulatory system. On the disease itself it has no more effect than any other remedy. In the forms of mental depression (melancholia, &c.) paraldehyde is not so constantly successful as a hypnotic as in the former class, but often acts well. It is particularly uncertain in the forms of melancholia with excessive activity of the psycho-reflex actions. In the chronic forms of mental weakness, accompanied by agitation, paraldehyde is as useful as in acute mania. In progressive paralysis, paraldehyde is of great use in combating the agrypnia of the paralytics, especially in the periods of exaltation of the second and third stages. In hysterical states, paraldehyde also acts well as a hypnotic, but does not otherwise affect the course of the neurosis. In cases of insomnia dependent on nervous over-excitement, and maintained obstinately by the dread of not being able to sleep, the effect of paraldehyde is certain, especially if the remedy be given in a sufficient dose. Paraldehyde is not only useful in mental and nervous diseases, but also in the insomnia of other diseases, fevers, rheumatics, gout, prurigo, chloro-anæmia, &c.

870. *Comin on Purpura Hamorrhagica produced by Sulphate of Quinine.*—Dr. Comin describes the following case in the *Gaceta de los Hospitales* (*El Siglo Médico*, April 15). A woman, aged 45, suffering from tertian ague, after the second dose of quinine began to suffer on the day of remission from slight and repeated chills and headache, slight fever, general prostration, and bilious vomiting. On the next day numerous large ecchymoses—chiefly on the right arm, and forearm and cheek of the same side—were seen. With these appeared hematemesis, hematuria, and metrorrhagia. Under appropriate treatment she soon recovered. After ten days there was a fresh access of the intermittent. After the administration of quinine the same symptoms occurred. All treatment being suspended, the fever was unattended by hæmorrhage; quinine was then given

again in two attacks, with the reappearance of the symptoms. The patient was then treated with arsenic, with no appearance of the hæmorrhage.

871. *Treatment of Phthisis with Iodoform.*—Since Semmola's communication on the use of iodoform in phthisis to the International Medical Congress in Amsterdam his experiments have been repeated, and with satisfactory result. Ciaramelli, De Renzi, Fasano, and other Italians have confirmed his statements (*Lo Spallanzani*, January and February 1883). Iodoform acts in phthisis and chronic bronchial catarrh as an anæsthetic, antiseptic, and alterative. The best results are obtained in incipient phthisis, which is often cured. In advanced cases this remedy is very useful, lessening expectoration, moderating the accesses of cough and fever, and arresting the progress of caseation—in a word, prolonging the patient's life. Iodoform has been used by inhalation, either by rubbing the patient's chest with an iodoform ointment, or by making him inhale essence of turpentine containing iodoform in solution. This method, though most rational, is so largely objected to by patients and their friends because of the disagreeable smell of the iodoform, that it cannot be extensively used. Or it may be given in a pill with extract of gentian or other extract, beginning with one grain a day, increasing the dose as toleration is acquired to six or eight grains a day.

872. *Bonatti on a New Therapeutic Application of Chloral Hydrate.*—Dr. Bonatti (*Italia Medica*, March; and *Gazz. Med. Ital. Prov. Veneto*, April 7) says that in the treatment of the insane one often meets with cases of obstinate constipation, in which a safe, prompt, and easily administered aperient is required. In these cases the stronger drastics, such as jalap and croton-oil, often are inefficient and dangerous. Bonatti finds that chloral in infusion of senna answers admirably. He gives it in doses of one gramme to two or even three in two grammes of infusion with 30 grammes of syrup. Its action is easy, safe, and powerfully drastic.

G. D'ARCY ADAMS, M.D.

873. *Sawyer on the Therapeutic Uses of Oleates.*—Dr. Sawyer, in the *Brit. Med. Jour.*, Feb. 1883, p. 250, refers to a paper read a few months ago by Dr. Shoemaker, of Philadelphia, before the Medical Society of Pennsylvania, on the preparation and uses of oleates. He claims to have introduced for the first time the use of chemically true oleates, in contradistinction to those previously prepared by the direct union of the acid with the base with or without heat. Messrs. Southall have prepared various oleates according to Dr. Shoemaker's directions. They possess the great advantage of being able to be used as dusting-powders as well as in the form of ointments; thus proving of great use in those troublesome acute and discharging affections of the skin in which greasy preparations of any kind cannot be borne.

874. *Granville on a Prescription for Acute Rheumatism.*—Dr. Mortimer Granville, in the *Brit. Med. Jour.*, April 1883, p. 663, gives a prescription which he had found very useful in cases of acute rheumatism. It is as follows:—Wrap the painful joints loosely in cotton-wool covered with flannel, and give the following mixture:— \mathcal{R} Tincture Aconiti (P.B.), \mathfrak{xxij} ; Ammonii Sulphidi, \mathfrak{xxvj} ; Aquæ Mentha Viridis Distillatæ, \mathfrak{vj} ; a fourth part every four or three hours, until pain is relieved and fever abated.

875. *Carson on the Treatment of Carbuncle.*—In the *Brit. Med. Jour.*, April 1883, p. 750, Dr. Carson says that, since he has used sulphide of calcium, he has never used the knife, caustic, or anything similar in the treatment of carbuncle. It is also extremely useful in the treatment of scrofulous glands about the neck and throat, especially in suppurating glands after scarlatina (*Vide* sect. 55: 3, 56: 2 *Medical Digest*).

876. *Pritchard on Belladonna as a Prophylactic against Scarlet Fever.*—Mr. Pritchard, in the *Lancet*, April 1883, p. 666, writes saying that, during an epidemic of scarlet fever which lately occurred at Kingston, it was determined in the Norbiton district (where over 200 cases occurred) to put the value of belladonna as a prophylactic to the test. The dose given to children under fourteen years of age varied from one to three minims of the tincture three times a day. It was thus given to seventy-four children, of whom only 5·4 per cent. had scarlet fever, whilst those who were not put on this treatment suffered at the rate of 36·2 per cent. [Mr. Pritchard's observations bear out those of many observers noted in the *Medical Digest*, sect. 81: 4, while with some belladonna finds no favour.—*Rep.*]

877. *Chapman on Distilled Water as a Vehicle for Eye-Lotions.*—Dr. Paul Chapman, in the *Practitioner*, May 1883, p. 354, suggests that in many cases, where distilled water is used in preparing eye-lotions of a soothing nature, the effect is often more irritating than otherwise. The reasons for this are stated to be that tap-water contains salt of sodium in solution, which make it slightly alkaline; and the practical deduction, which Dr. Chapman has verified, is, that the addition of two and a half grains of chloride of sodium to the ounce of distilled water, renders any lotion, intended to be of a soothing character, much more beneficial.

878. *Hay on the Value of some Nitric, Nitrous, and Nitro-Compounds in Angina Pectoris.*—Dr. Matthew Hay, in the *Practitioner*, May 1883, contributes an article bearing on an account of the successful employment of nitrite of sodium in cases of angina which appeared in the *Practitioner*, March 1883, p. 179. The conclusions at which he arrives are, briefly, 'that nitrous acid in any combination, whether as an ether or a metallic salt, is useful in the treatment of angina pectoris; and that, in the case of nitrite of amyl, the action of the acid is aided by that of the base. On the other hand, all compounds of nitric acid, whether ethereal or metallic, are without effect, unless it so happen that the constitution of the nitrate is such that it decomposes in the body with the liberation of nitrous acid. Further, nitro-substitution compounds have likewise no remedial effect. So far as at present known, the nitrogen-containing remedies for angina pectoris may be divided into two classes—a, consisting of combinations of nitrous acid with metallic oxides or alcoholic radicals, as nitrite of sodium and nitrite of sodium and nitrite of ethyl; b, comprising a peculiar class of nitric ethers obtained from the higher alcohols whose decomposition within the body results in the production of nitrous acid, of which nitro-glycerine is an example.'

879. *Sheen on Nitrite of Amyl and Nitroglycerine in Uræmic Asthma.*—Dr. Sheen, in the *Brit. Med. Jour.*, April 1883, p. 811, gives brief notes on a case of a man, aged 55, who was suffering from chronic Bright's disease, and was attacked with severe dyspnoea. He was given three minims of nitrite of

amyl to inhale, and in a few minutes he was able to breathe easily and to recline in bed. Nitrite of amyl acts probably through the vaso-motor nerves, relaxing the arterioles, and thus reducing blood-pressure. Nitroglycerine is said to have much the same action, and, according to Dr. Mahomed, has a great superiority over amyl, in its gradual and more lasting effect. [In a recent case, the reporter has used with advantage sodium nitrite, strongly advocated by Dr. Hay in the *Practitioner* for 1883, p. 179, in cases of angina pectoris.]

880. *Dreschfeld on the Treatment of Phthisis by Iodoform.*—Dr. Dreschfeld, in the *Brit. Med. Jour.*, April 1883, p. 817, continues his observations, which first appeared in the *Journal* 1882, Vol. ii., p. 169. The favourable opinion then formed has been further strengthened, and the benefits claimed for this method of treatment are: 1, increase of weight; 2, increase of appetite; 3, diminution of cough and expectoration; 4, diminution, or even total cessation, of night sweats; 5, the temperature was often a little lowered. No symptoms of iodoform intoxication had ever been seen. Several medical men who have tried this treatment have obtained very satisfactory results. [Professor Semmola, of Naples, speaks very favourably of this drug in the treatment of phthisis, *vide Lancet*, Aug. 1882, p. 326. The value of iodoform insufflations in laryngeal phthisis is stated by Beetz to be great, *vide* the LONDON MEDICAL RECORD, 1882, p. 50.—*Rep.*]

881. *Hay on the Use of Concentrated Solutions of Saline Cathartics in Dropsy.*—Dr. Matthew Hay, in the *Lancet*, April 1883, p. 678, writes concerning the value of the use of a saline cathartic on the concentration of the blood. From experiments, he shows that, if the salt be given in a concentrated solution when the alimentary canal contains little or no fluid, it produces an almost immediate and very decided concentration of the blood, owing to the withdrawal of a large quantity of water therefrom. If the alimentary canal contain fluid when the salt is administered, no such concentration takes place. The excessive state of concentration does not last long, as in about an hour it begins to decline, and in four hours it becomes normal. Some hours after the administration of the salt the blood undergoes another concentration, less in degree than the first, but continuing the greater part of the day. This is due to the diuretic effect of the absorbed salt. From this double action of a concentrated saline cathartic, Dr. Hay recommends its use in cases of dropsy, and gives details of a case in which he found great benefit from a dose of three-quarters of an ounce of sulphate of magnesia dissolved in an ounce of water, in a patient with heart-disease attended with dropsy.

RICHARD NEALE, M.D.

882. *Lewin on the Use of Santonin.*—At a meeting of the Berlin Medical Society, on March 7 (*Deutsche Med. Wochens.*, March 21), Herr Lewin recommended that santonin should be prescribed in oil, as by that means it was prevented from passing into the system while yet in the stomach, and was not absorbed until it reached the intestines, where it could act more directly on the worms. He had found by experiment that santonin administered in lozenges manifested itself in the urine sixteen hours sooner than when it was given in oil.

883. *Andresse on Perchloride of Iron in Diphtheria.*—Dr. Andresse of Teltow (*Deutsche Med. Wochens.*, March 14) recommends perchloride of iron in diphtheria, a gargle of five or six drops of the liquor

to a small cupful of warm water to be used several times a day by sick and healthy alike, and the affected throat to be thoroughly brushed with the liquor, diluted with two or three times its amount of water. The throat should also be sprayed with the same dilution as is used for gargling. Internally, he prescribes a solution of quinine (one part in 120) of which a teaspoonful should be taken every hour undiluted, in order to obtain the beneficial effect of its local action.

ALICE KER, M.D.

884. *Burke on Abdominal Inunction during Pregnancy.*—Dr. Wm. C. Burke, jun., in the *New England Med. Monthly*, says:—‘In the last three or four months of pregnancy all women suffer discomfort from the distension of the abdominal walls, which I have found greatly relieved by the free use, at least once a day, of some unctuous material, as vaseline or sweet lard, and in many cases the formation of the linea alba is prevented.’

OBSTETRICS AND GYNÆCOLOGY

RECENT PAPERS.

885. ECKERT, ALEXANDRA.—On Two Cases of Complete Absence of the Uterus. (*Vratch*, 1882, No. 42, pp. 714-5.)

886. BERG, A. E.—On the Pathology of Uterine Fibroids (Endometritis Myomatosa). (*Ibid.*, 1882, No. 23, pp. 371-5, and No. 94, pp. 390-2.)

887. TOLOCHINOFF, N. F.—Supravaginal Amputation of the Uterine Cervix in Cancer. (*Ibid.*, 1882, No. 22, pp. 355-6.)

888. FRASCANI.—A Case of Uræmic Dyspnoea. (*Gazz. Med. Ital. Lomb.*, April 14.)

889. TITTEL.—Nitrous Oxide as an Anaesthetic in Labour. (*Wiener Med. Blätter*, March 15.)

890. KOCHMANN.—The Treatment of Phlegmasia Dolens. (*Ibid.*, March 1.)

891. KALTENBACH.—The Treatment of Erosions of the Nipple. (*Wiener Med. Blätter*, No. 7, 1883.)

892. VERNEUIL.—Glycosuria in Nursing Women. (*Jour. de Méd. et de Chir. Prats.*, March.)

893. HOLLAND.—The Treatment of Uterine Cancer with Chian Turpentine. (*British Med. Jour.*, March, p. 560.)

894. THORBUERN.—Foot-and-Mouth Disease and the Lying-in Woman. (*Lancet*, March, p. 518.)

ART. 885. *Eckert on Two Cases of Congenital Absence of the Uterus and Ovaries.*—Dr. Alexandra Eckert, in the *Vratch*, 1882, No. 42, p. 714, details two cases in which she was not able to detect any trace of the uterus or ovaries. One of the patients, a Jewess, aged 36, had been married (twice) sixteen years; the other, a Russian, aged 22, two years. Neither of them suspected that they had any sexual defect, though they never menstruated. Both of them were of good general health, and applied to the author on account of some trifling ailment. In both of them the mammary glands and external genital parts were well and normally developed. The vaginal *cul-de-sac*, which in both of the patients lay shrunken near the introitus, on introducing a finger, showed a length of about 6 or 8 centimetres. The mucous membrane was quite smooth, void of any rugæ. [Within these few years similar cases have been reported by the following Russian authors. 1. Dr. Dochman, of Kars, in the *Mediz. Obozr.*, Feb. 1879, p. 272. The case was one of an Imeretian prostitute, aged 19; the mammae, external genitals,

and general development were normal; there was no orgasm; every three or four weeks there occurred epistaxis, lasting one or two days. 2. Dr. Grigoroff, of Moscow, *ibid.*, p. 5. The patient, aged 36, was married; she had no orgasm; there were no pubic hairs; the external genitals were like those of a girl before puberty. 3. Dr. M. Lebedeff, *ibid.*, p. 9. The patient, aged 26, had been married six years; the vaginal *cul-de-sac* was 1½ inch long; there was dyspareunia; the general health and build were excellent; the external genitals were normal; the myrtiform caruncles were well seen. 4. Dr. Tzvetkoff, *ibid.*, p. 10. The patient, aged 25, had been married eight years; she applied on account of sterility; the mammae and labia minora were imperfectly developed; her general health was good; the vagina was very narrow, 2 inches long; sexual desire was present; coition during the first years was painful, then painless. 5. Dr. G. Goldstein, of Kieff, in the *Mediz. Obozr.*, Dec. 1879, p. 783. The patient, a Jewess, aged 18, had been married one year; her general development was good; the mammary glands were normal; the labia were small, the clitoris was absent; the vaginal *cul-de-sac* was about 1 centimetre long; since the sixteenth year there occurred monthly molimina, consisting in headache, lumbar and abdominal pains, frequent calls to micturition, and erotic excitement. 6. Dr. Shonoroff, *ibid.*, p. 784. The patient was aged 16; the mammae and labia were normal; the growth of hair on the pubes was extremely scanty, the clitoris was rudimentary, the vaginal *cul-de-sac* nearly absent; there were molimina (headache, intense injection of the eyes, malaise, heart-palpitation, eczema), and monthly profuse epistaxis. 7. Dr. G. Bellin, of Charkov, in the *Vratch*, *Volom.*, 1879, No. 353, p. 623. The patient, aged 48, was of strong build; the mammary glands and external genitals were perfectly normal; the vaginal *cul-de-sac* was 4 centimetres long; introitus was highly hyperæsthetic; coition *per vaginam* was always extremely painful, while irritation (rubbing) of the clitoris and labia gave her a pleasant feeling, which induced her constantly to seek male company; ultimately, from being aware of her having a sexual defect, she became a drunkard. 8. Dr. N. Prozorovsky, *ibid.*, 1880, No. 408, p. 1288. The patient, a peasant woman, aged 28, had been married eight years; she was well built; the mammary glands were rudimentary, the external genitals normal, the *cul-de-sac* about 3½ inches long; coitus was painful; there was no orgasm or sexual desire. 9. N. N., *ibid.*, No. 419, p. 1469. The patient was a prostitute, aged 22; the *cul-de-sac* was about 2 inches long; the mammary glands were large, the external genitals and general build normal; orgasm and sexual desire were rather exaggerated. See also cases of ‘Absence of the Uterus,’ published in the *New York Med. Record*, Dec. 10, 1881, p. 653, by Dr. Emma Ward Edwards; in the *Lancet*, Jan. 3, 1880, by Dr. J. Clay; and in the *Brit. Med. Jour.*, Dec. 11, 1880, p. 924, by Dr. Braxton Hicks.—*Résumé.*

886. *Berg on the Pathology of Uterine Fibroids (Endometritis Myomatosa).*—Dr. A. E. Berg, in the *Vratch*, 1882, Nos. 23 and 24, at considerable length details the interesting case of a patient, aged 45, who sought admission to the late Professor M. T. Horwitz’s clinic on account of the enlargement of her abdomen, which had begun to grow two years before. The patient’s belly resembled that of a woman in the seventh month of pregnancy. Within

the last few months before admission her menses became irregular and profuse, and she began to have slight intermenstrual hæmorrhage, but her general health remained good. A large submucous fibroid was detected. To prepare for removal of the tumour, tupelo tents were introduced into the cervical cavity, and left each time for six hours. All the while carbolic vaginal injections were daily made. On the third day after the withdrawal of the last tupelo tent there quite suddenly appeared fainting, then severe rigor, extremely obstinate muco-biliary vomiting, fever, all the signs of acute peritonitis, collapse, and, about thirty-six hours from the beginning of the symptoms, she died. At the *post mortem* examination there were found, beside an egg-shaped fibromyoma growing from the posterior uterine wall near the fundus, and measuring 16 centimètres longitudinally and 9½ centimètres transversely, fresh purulent fluid and false membranes in the peritoneal cavity, and purulent inflammation of the mucous membrane of the Fallopian tubes and the whole uterine cavity. Basing his view of the case on a careful inspection and microscopic examination of the parts, Dr. Berg comes to the conclusion that the course of the phenomena was as follows. From some unknown cause, there at first developed purulent inflammation of the mucous covering of the myoma; then the inflammation spread to the mucous membrane of the womb and tubes, purulent secretion was effused through the latter into the peritoneal cavity, and gave rise to fatal peritonitis. To mark the starting-point of the process in similar cases, the author coins the name of 'endometritis myomatosa.'

887. *Tolochinoff on Supravaginal Amputation of the Uterine Cervix in Cancer*.—The writer, in the *Vratch*, 1882, No. 22, p. 355, reports his two cases in which he successfully removed the carcinomatous vaginal portion of the cervix by supravaginal circular amputation after Schröder's method. The latter is preferred by the author to the infundibuliform method of Hegar as permitting:—1, a more complete removal of degenerated tissues, even when the neoplasm spreads to the vaginal *cul-de-sac*; and 2, an easier application of sutures, which more effectively prevents any considerable hæmorrhage. Professor Tolochinoff does not see any special danger either in the fact of Schröder's operation exposing the circumuterine cellular tissue, or in accidental (sometimes unavoidable) opening of Douglas's space.

V. IDELSON, M.D.

888. *Frascani on a Case of Uræmic Dyspnœa*.—Dr. Frascanti describes the following case in the *Gazz. Med. Ital. Lomb.*, April 14. A. B., aged 25, first pregnancy, had suffered from rickets in her early infancy, and had slight spinal curvature in the upper dorsal region; otherwise she was healthy. About the seventh month her legs began to swell, especially in the evening. She was admitted to the Maternity of Florence, and after being in ten days she had an attack of urgent dyspnœa. The legs were noticed to be more swollen; the urine was scanty, and contained 5 per cent. of albumen. She had tinnitus aurium, nausea, and vomiting; her sleep was broken, and she had frequent attacks of dyspnœa. As these symptoms persisted, and she was evidently becoming worse, it was determined to bring on labour; and as there seemed to be no immediate urgency, the warm douche was employed to prepare and soften the cervix. Twenty-five litres of warm carbolic solution (2½ per cent.) were thrown

up. The cervix was softened, and permitted the introduction of the finger; and the foetal head was easily felt. The next day the symptoms had rather increased: there was much dyspnœa and she had acute pain in the lumbar region. The urine was scanty, milky, and contained much albumen. The patient was much depressed. There was frequent slight uterine contraction, and the os was dilating, so that the douche was not again used. She continued in much the same state for two days, but the anasarca increased, and the urine became solid from albumen on boiling. Pulse small. She had frequent great dyspnœa. The membranes were ruptured, the head soon descended, and when it pressed on the perineum the forceps was applied and delivery effected without difficulty. Scarcely was the child born, when she had a slight convulsion and died. The necropsy showed that all the organs were healthy with the exception of the kidneys, which were larger than normal; the capsule was easily detached without lacerating the organ: the cortical substance was white, but the pyramids retained their red colour. Parenchymatous nephritis was present.

G. D'ARCY ADAMS, M.D.

889. *Tittel on Nitrous Oxide as an Anæsthetic in Labour*.—At a meeting of the Gynecological Society in Dresden (*Wiener Med. Blätter*, March 15), Dr. Tittel gave a report of over fifty trials which he had made of the inhalation of nitrous oxide gas in parturition. He employed it chiefly in primiparæ with very severe pains, and found a diminution of the suffering in every case. He found it acted better when given in the first stage, as its effects lasted into the second, and quiet inhalation was more difficult when it was attempted to be given in the second stage. The pulse was generally retarded, and the foetal pulsations, on the contrary, generally accelerated. The pains were in many cases increased in strength and frequency, and Dr. Tittel found this action of the gas very serviceable in multiparæ with few and weak pains. Vomiting was arrested in four cases by the inhalation of the gas, and the only evil results which were observed were two cases of convulsions, one hysterical and the other true epileptic.

890. *Kochmann on the Treatment of Phlegmasia Dolens*.—Dr. Kochmann (*Wiener Med. Blätter*, March 1) has successfully treated a case of phlegmasia alba dolens by massage and raising of the limb until the foot is higher than the head. He begins the massage at the dorsum of the foot, and passes gradually and cautiously upwards, not attempting to touch the site of the venous thrombosis until the third sitting, when he very carefully, and with the most gentle touches, subjects it to the same treatment. The result was an immediate diminution and subsequent disappearance of pain and swelling, and the patient was able to walk on the fourth day. He lays stress on the necessity of the utmost precaution in attempting to apply massage to the site of thrombosis, for fear of causing embolism.

891. *Kaltenbach on the Treatment of Erosions of the Nipple*.—In an article on erosions of the nipple as a starting point of puerperal infection (*Wiener Med. Blätter*, No. 7, 1883), Prof. Kaltenbach of Freiburg lays especial stress on the necessity of treating the small wounds with as much care as greater ones, especially with regard to disinfection. The treatment he recommends is solution of carbolic acid, 3 to 5 per cent., with which the nipple is to be washed

in slight cases, while in severer ones a compress kept on the part will prevent excessive secretion. He does not approve of a mother ceasing to nurse her child on the occurrence of a fissure.

ALICE KER, M.D.

892. *Vernueil on Glycosuria in Nursing Women.* M. Vernueil (*Jour. de Med. et de Chir. Prat.*, March 1883) has drawn attention to the presence of glycosuria in nursing women in whom lactation is suddenly suppressed, as in abscess of the breast, and he asks whether this does not explain the tendency to suppurate, diffuse inflammation, and sloughing in puerperal and nursing women. For his own part, he has for many years refused to operate during the period of lactation.

ROBERT SAUNDBY, M.D.

893. *Holland on the Treatment of Uterine Cancer with Chian Turpentine.*—Dr. E. Holland, in the *Brit. Med. Jour.*, March 1883, p. 560, writes stating that he has made careful investigations with regard to the use of Chian turpentine in a series of cases of cancer of the uterus, where the disease was well marked and left no doubt as to its malignant nature. The results may be thus summed up. None of the cases were cured; in none was the invading progress of the disease decidedly arrested. Some patients at first seemed pleased with the results and seemed cheerful, but not for long. No arrest of the disease was produced.

894. *Thorburn on Foot-and-Mouth Disease and the Lying-in Woman.*—Dr. Thorburn, in the *Lancet*, March 1883, p. 518, mentions a case of fatal metria, owing to the patient having been supplied with milk from a farm where foot-and-mouth disease was widely prevalent. All other causes of zymotic or septic poisoning were apparently capable of being eliminated; and though there was fetid lochial discharge, a careful investigation of the uterine cavity discovered nothing; repeated washings proved of no value in reducing the temperature. The sanitary surroundings of the house were excellent. Any corroborative cases on the subject would be interesting.

RICHARD NEALE, M.D.

TOXICOLOGY AND MEDICAL JURISPRUDENCE.

RECENT PAPERS.

895. KURLY.—Defective Ossification of the Skull. (*Friedrich's Blätter für Gerichtl. Med.*, 1883, p. 123.)

896. GARNIER.—Localisation of Arsenic in the Liver. (*Ann. d'Hygiène*, 1883, Vol. ix., p. 310.)

897. OGSTON, F., JUNE.—Post Mortem Evidence of Drowning. (*Edin. Med. Jour.*, 1882, p. 863.)

898. MITCHELL and REICHERT.—The Venoms of Serpents. (*New York Med. News*, April 28.)

899. MACNIVEN.—Poisoning by Bicarbonate of Potash. (*Glasgow Med. Jour.*, May.)

900. DREW.—Injuries of the Head in Relation to Crimes of Violence. (*Brit. Med. Jour.*, March, p. 559.)

901. SANKEY.—A Novel Method of Suppuration. (*Brit. Med. Jour.*, Jan., p. 88.)

902. MURRELL.—Intraperitoneal Injections in Cases of Poisoning. (*Lancet*, April, p. 705.)

903. ROUTH.—Poisoning by Citrate of Caffeine: Recovery. (*Ibid.*, April, p. 680.)

904. LEYDEN.—Lead-Poisoning. (*Deutsche Med. Wochens.*, March 28.)

905. MARME.—The Secretions in Morphia Poisoning. (*Deutsche Med. Wochens.*, April 4.)

ART. 895. *Kubly on Defective Ossification of the Skull.*—Dr. Kubly describes (*Friedrich's Blätter für Gerichtl. Med.*, 1883, p. 123) an interesting case of child-murder by suffocation, with which was associated a fracture of the skull through defective ossification; and also another case of fracture of the skull in a child four months old through injury where there was also defective ossification of the skull-bones, without which the injury would probably not have been of a fatal character.

896. *Garnier on Localisation of Arsenic in the Liver.*—M. Garnier (*Ann. d'Hygiène*, Vol. ix., p. 310) has investigated the vexed question of the localisation of arsenic in various organs and tissues, and has arrived at the conclusion, from his own experiments, that the liver is the organ in which the poison accumulates to the greatest amount in both acute and chronic arsenical poisoning. Relatively small quantities could be extracted from the brain when large quantities were obtained from the liver. Garnier also discusses certain theoretical considerations. Since arsenic, unlike mercury, forms no organo-metallic compound with albumen, it has been supposed that it may replace phosphorus in lecithin. Garnier thinks, however, that arsenic more probably forms insoluble arsenites and arsenates with the calcium of the fluids.

897. *Ogston on Post Mortem Evidence of Drowning.*—Dr. F. Ogston, jun., contributes an original paper (*Edinb. Med. Jour.*, 1882, p. 863) on the diagnostic value of various data for determining that death was due to drowning, and summarises his conclusions thus. 1. When an external examination of the body only is allowed, if abundance of water pour from the mouth on turning the corpse face downwards, and if white watery froth be found at the mouth and nostrils, or if it may be made to issue from them on compressing the chest, we may be justified in giving an opinion as to the probability of drowning, especially when the accessory signs—viz., rosy redness of the face and front of the chest, goose-skin, and bleaching and corrugation of the hands, are well marked; presuming always that no lethal injuries are seen on the body which would appear to have been inflicted before death, and no traces of corrosive action, &c., from poisons be observable about the lips, hands, clothes, &c.; but, to justify us in giving a more positive opinion, we ought to have furnished to us a detailed account of the locality in which, and the circumstances under which, the body was observed before its removal to the place where it lies for examination. 2. Where a complete inspection of the body is permitted, we may give a more positive opinion when, in addition to the external appearances, water in marked quantity, mixed with white watery froth, is found in the lungs and stomach, and also, perhaps, when a large quantity of watery fluid is seen in the pleural cavities; when sand, seaweed, &c., is found in the bronchi, or even in the trachea; when the lungs are bulky, or protrude on the removal of the sternum; and when the blood within the heart is wholly fluid, especially when with these signs we find marked appearances of asphyxia in the heart, lungs, liver, &c.

898. *Mitchell and Reichert on the Venoms of Serpents.*—An important research, from the Laboratory of Physiology, University of Pennsylvania, is the subject of a preliminary report by Drs. Weir Mitchell and E. T. Reichert (*New York Medical News*, April 28, 1883). The venoms experimented with were those of the cobra, rattlesnake, moccasin,

and copper-head, all of which produce in animals external symptoms which do not differ radically, save in degree. Contrary to the generally received views, these experimenters are able to show that the venoms of the moccasin and of the rattlesnake are not single venoms, but contain three proteids—one analogous to peptones, but possessed of special chemical properties, and a putrefacient; one akin to globulins, and a much more fatal poison, probably attacking the respiratory centres, and destroying the coagulating power of the blood; and a third resembling the albuminoses, and probably innocent. Furthermore, they have learned that the poisons of the rattlesnake (*Crotalus adamanteus*), copper-head (*Ankistrodon contortrix*), and moccasin (*Toxophis piscivorus*) are capable of being destroyed by bromine, iodine, thirty-three per cent. hydrobromic acid, the hydrates of potassium and sodium and, as Lacerda has shown, by potassium permanganate.

THOS. STEVENSON, M.D.

899. *Macniven on Poisoning by Bichromate of Potash*.—Macniven (*Glasgow Med. Jour.*, May 1883) reports a case of poisoning by bichromate of potash in a man aged 22. The motive was jealousy. The amount estimated to have been taken was 5j. It was taken at five o'clock one evening, 1½ hours after food. The symptoms were giddiness, pain in the stomach, vomiting, thirst, rigors, coldness of the surface, small pulse, and dilated pupils. The treatment consisted in an emetic of zinc sulphate, followed by washing out the stomach with tepid water, and a hypodermic injection of 20 minims of sulphuric ether, with a mustard poultice to the epigastrium, and warm blankets and hot bottles. The patient vomited coffee, but retained milk diluted with lime water, to which 10 grains of bismuth were added. He was allowed barley-water as drink; for diet, milk and lime-water. Next morning, he complained only of slight soreness of the mouth. He recovered without a bad symptom. The case differs from most others in the absence of purging.

ROBERT SAUNDY, M.D.

900. *Drew on Injuries of the Head in Relation to Crimes of Violence*.—Mr. Clifford Drew, in the *Brit. Med. Jour.*, March 1883, p. 559, gives his experience during the time he was resident surgeon in Milbank Convict Prison on the influence that cranial injuries had on the prisoners' career. One thing is certain, he says, that among convicts a great number of epileptics were found. The subject, however, of his paper is to open up the relationship that depressed fractures have to murderous assault and crimes of that order. A few cases are cited of criminals who suffered from attacks of uncontrollable frenzy; in each instance there was evidence of a previous injury to the head.

901. *Sankey on a Novel Method of Suffocation*.—Mr. Heurtley Sankey, in the *Brit. Med. Jour.*, January 1883, p. 88, referring to the *Journal for Dec. 23, 1882*, p. 1246, notes a case in which a patient was found dead in bed, lying on his back with a round pebble in each nostril, and a strip of flannel rolled up and stuffed into the throat.

902. *Murrell on Intraperitoneal Injections in Cases of Poisoning*.—Dr. Murrell, in the *Lancet*, April 1883, p. 705, strongly advocates Dr. Ringer's suggestion that the injection of saline solutions should be resorted to in cases of poisoning. In cases of emergency, when there is not time to prepare Dr. Ringer's solution, the following formula is recommended: Common salt, one drachm; bicar-

bonate of soda, four grains; chloride of calcium, three grains; water, twenty ounces, at a temperature of 100° F. This may be used either for intravenous or intraperitoneal injection. [Several valuable papers on intraperitoneal injections have appeared in the *LONDON MEDICAL RECORD*, 1880 and 1881, and other papers; vide *Medical Digest*, section 142:2. The dangers attending the injection of blood are treated at p. 326, *LONDON MEDICAL RECORD*, 1881.—*Rep.*]

903. *Routh on a Case of Poisoning by Citrate of Caffeine: Recovery*.—Dr. Routh, in the *Lancet*, April 1883, p. 680, gives the notes of a patient, aged 63, who took a drachm of the pure citrate of caffeine by mistake. The symptoms produced were those of a vegetable and depressant irritant, and would have proved fatal but for the violent sickness which the poison caused. There was great weakness, and marked tremors in the extremities, but no convulsions. The treatment adopted was first to encourage the vomiting, then to give stimulants to restore the cardiac syncope.

RICHARD NEALE, M.D.

904. *Leyden on Lead-Poisoning*.—In the Berlin Medical Society on March 19 (*Deutsche Med. Wochenschr.*, March 28), Herr Leyden reported a case of lead-poisoning, which he followed up by some remarks on the pathological anatomy of lead-palsy and of the renal affection. The patient was under observation for eighteen days in hospital, and presented specially well-marked symptoms of paralysis of the extensors, colic, constipation, albuminuria, and pains in the joints. Three attacks of loss of consciousness, unaccompanied by convulsions, came on at intervals of seven days, the third of which proved fatal. At the necropsy, recent hæmorrhage was found on the surface of the brain and in the lateral ventricles; the heart was slightly enlarged, and the wall of the left ventricle three centimetres (1½ inch) thick; the kidneys were small, the cortical substance diminished, and the pelvis enlarged. The smaller renal arteries, and to some extent the glomeruli, were in a state of hyaline degeneration; in the large arteries, hypertrophy of the inner coat was found here and there. Leyden looks upon this renal condition as peculiar to lead-poisoning, although he is unable to say why the lead should cause hyaline degeneration of the arteries, or even whether this is a constant occurrence in the disease. He considers the joint-affection to be quite independent of gout, as no deposit of salts is found, and he looks upon the cerebral effusion of blood as a consequence, not a cause, of the attacks of coma.

905. *Marmé on the Secretions in Morphia Poisoning*.—Dr. Marmé, of Göttingen, communicates (*Deutsche Med. Wochenschr.*, April 4), a paper on his investigations of the urine and other excretions in morphia poisoning, undertaken partly on patients, partly on animals. He finds that morphia can be recovered unaltered from the urine when the amount taken is not less than 1 centigramme (½ grain) daily. When larger doses are taken, it is found also in the feces. Instead of morphia, Dr. Marmé sometimes found 'oxydimorphin' in the excretions and in the tissues, and he found by experiment that this substance was present when a poisonous dose had been administered in very small quantities at a time, and the symptoms resembled those of the abstinence stage of morphia intoxication. From his experiments Dr. Marmé has formed the opinion that morphia may be left off suddenly in very

strong well-nourished individuals, but that in weakly persons it is necessary to diminish the dose gradually.

ALICE KER, M.D.

OPHTHALMOLOGY.

RECENT PAPERS.

906. KVASHONKIN, A.—A Case of Complete Congenital Absence of the Eyeballs. (*Wratch*, 1883, No. 1, p. 12.)
907. BARABASHEFF, N. P.—Echinococcus of the Orbit. (*Wratch*, 1882, No. 18, p. 280.)
908. HELFREICH.—Arterial Pulsation in the Retina. (*Festschrift zur Feier des 300 Bestehens der Universität zu Würzburg*.)
909. RODERO.—On the Treatment of Purulent Ophthalmia. (*Revista Estreña*, Nov. 1882.)
910. NICOLINI.—Jequirity. (*Gazz. Med. Ital. Lombardia*, April 7 and 14.)
911. HARTIDGE.—Boroglyceride in the Treatment of Purulent Ophthalmia. (*Lancet*, Feb. 1883, p. 273.)
912. WOLFE.—Transplantation of Skin-Flaps from Distant Parts without Pedicle. (*Practitioner*, May, p. 331.)
913. FITZPATRICK.—The Treatment of Hordeolum. (*Lancet*, April, p. 331.)
914. MARCHIANI.—Bilateral Hemi-amaurosis and Hemisideria. (Graefe's *Archiv*, and *Centralbl. für die Med. Wiss.*, March 24.)
915. SAMELSON.—The Anatomy and Nosology of Retrobulbar Neuritis. (*Archiv für Ophthalm.*, Band xxviii.)
916. MAUTHNER.—The Influence of the Electric Light on the Human Eye. (*Wien. Allgem. Med. Zeit.*, No. 10, 1883.)
917. MAUTHNER.—Embolism of the Arteria Centralis Retinae. (*Wiener Med. Blätter*, March 1.)
918. KOHLEK.—On Neuroparalytic Keratitis. (*Wiener Med. Blätter*, March 1.)
919. HASNER.—Paralysis of the Oculo-Motor Nerve during Menstruation. (*Wiener Med. Blätter*, March 15.)
920. HIRSTMANN.—Optic Neuritis following Hemorrhage. (*Centralbl. für die Med. Wiss.*, No. 3, 1882.)

ART. 906. *Kvashonkin on a Case of Congenital Anophthalmos Duplex*.—Dr. A. Kvashonkin describes, in the *Wratch*, 1883, No. 1, an interesting case of complete absence of both eyeballs in a boy, otherwise developed quite normally. The eyelids are shaped regularly; on their separation there is seen a shallow conjunctival *cul-de-sac*. A finger detects no trace of any rudimentary eyeball. The lacrymal glands are present; and when the child is crying, there is an abundant flow of tears. The boy is now about one year old, well-nourished, and has six incisor teeth; and his father, mother, and two sisters are healthy.

907. *Barabasheff on Echinococcus of the Orbit*.—Dr. N. P. Barabasheff, of Charkov, reports (*Wratch*, 1882, No. 18) the case of a girl, aged twelve, in whom all the symptoms apparently pointed to a rapidly growing malignant tumour of the orbit, and indicated removal both of the neoplasm and of the eyeball. The operation was performed accordingly, but the tumour proved to be an echinococcus. The cyst had the size of a large walnut. This is the fortieth case of echinococcus of the orbit known in medical literature, and the first published in Russia.

V. IDELSON, M.D.

908. *Helfreich on Arterial Pulsation in the Retina*. Dr. Helfreich points out (*Festschrift zur Feier des 300 Bestehens der Julius-Maximilians Universität zu Würzburg*; Leipzig, 1882) that in aortic in-

sufficiency the arterial pulse is the most important and most easily recognisable phenomenon. It was observed in seven out of ten cases of this disease, whereas the so-called capillary pulsation of the optic disc (a reddening in systole and a blanching in diastole) is less frequently present and more difficult of detection. The arterial pulse could also be detected in three cases of insufficiency and stenosis of the aortic aperture. One case of both aortic and mitral insufficiency showed both arterial and capillary pulsation, whereas in another such case these phenomena were absent. The capillary pulse has been observed in aortic insufficiency once by the author, and once by Becker of Heidelberg. He considers, however, that for diagnostic purposes it has but a subordinate importance. He finds the arterial pulse wanting in pure cardiac hypertrophy. It depends upon the regurgitation of aortic blood, caused by insufficiency of the valve. When, however, the heart is at the same time hypertrophied, it strengthens this appearance. In three cases of pure stenosis of the aortic system, there were no morbid appearances. In lead-poisoning, though the characteristic increased tension was present, neither an enlargement nor a pulsation of the retinal vessels was visible.

W. A. BRAILEY, M.D.

909. *Rodero on the Treatment of Purulent Ophthalmia*.—Dr. Rodero (*Revista Estreña*, Nov. 1882) considers the treatment by nitrate of silver to be by far the most efficacious. He uses a solution of 1 in 30, applying it thoroughly once a day. If the inflammation be high, and the conjunctiva very turgid, he scarifies it, and applies cold compresses of carbolic or boracic solution. In ulceration of the cornea he instils, three or four times a day, two or three drops of a solution of neutral sulphate of eserine five centigrammes to fifteen grammes of distilled water, after having first washed away all discharge. The solution of nitrate of silver is to be instilled as before, and the cold antiseptic compress kept carefully and constantly applied. He thinks the value of eserine in perforation of the cornea, with prolapse of the iris, staphyloma anterior, &c., cannot be too highly rated. Atropine, which was formerly used, instead of reducing the hernia of the iris, increases its volume, rendering its excision necessary. Under the influence of eserine, the iris is freed from the edges of the wound, and instead of a staphylomatous cicatrix a perfectly flat scar remains; and even in cases of central perforation much better results are obtained from eserine, which, contracting the pupil, removes the iris from the cornea and prevents the formation of anterior synechia.

910. *Nicolini on Jequirity*.—Dr. Nicolini, of the Ospedale Maggiore of Milan, has tried jequirity in many cases of granular ophthalmia and pannus (*Gazz. Med. Ital. Lombardia*, April 7 and 14, 1883). His results do not confirm the statements of De Wecker. He used the infusion of the seeds prepared as De Wecker recommends, but he was careful to keep it in a stoppered bottle and not in an open vessel, and each patient was provided with his own supply, so that no contamination of the infusion could take place; he is inclined to attribute the difference of his results somewhat to this care. He finds that jequirity only excites a catarrhal state which sometimes reaches the purulent stage, but which can hardly be called a purulent conjunctivitis. This catarrh subsides spontaneously, and shortly everything is found in precisely the same state as before.

G. D'ARCY ADAMS, M.D.

911. *Hartridge on Boroglyceride in the Treatment of Purulent Ophthalmia.*—Mr. Hartridge, in the *Lancet*, Feb. 1883, p. 273, writes saying that he has recently treated some cases of purulent ophthalmia with boroglyceride, and the result has been so satisfactory that he urges a trial of this antiseptic, not only in cases of ophthalmia, but for disinfecting instruments, &c., in cataract, and other operations where a non-irritating antiseptic is required. The strength of the solution used in cases of purulent ophthalmia was 1 in 10; the eye was well brushed with this every day, whilst the lids were bathed every hour with a 1 in 40 solution. The following are some of the advantages of this antiseptic. It is readily soluble in cold or hot water; it is odourless, tasteless, and unirritating; a solution of 1 in 10 dropped into the eye causes scarcely any smarting.

912. *Wolfe on Transplantation of Skin-Flaps from Distant Parts without Pedicle.*—Dr. Wolfe, in the *Practitioner*, May 1883, p. 331, draws attention to an article published by him in the *Brit. Med. Jour.*, Sept. 18, 1875, in which he describes a method of transplanting skin-flaps from distant parts without pedicle for the purpose of correcting eversion of the eyelids. Since then the operation has been tried by several surgeons with great success, and it is with a view of applying this method to other regions besides the eye that Dr. Wolfe gives a *résumé* of his experiences with regard to it. In order to insure success it is necessary to free the piece of skin which you wish to transplant from all areolar tissue and to fix it properly in its new place. [Many of the cases to which Dr. Wolfe refers may be consulted by reference to sections 161 : 3, and 1639 : 2 of the *Medical Digest.*—*Rfp.*]

913. *FitzPatrick on the Treatment of Hordeolum.* Mr. FitzPatrick, in the *Lancet*, April 1883, p. 715, writes stating his recent experiences in the treatment of hordeolum, or the common sty, during the time he was in Egypt. The plan of treatment adopted is to dispense with hot fomentations, &c., and to apply locally tincture of iodine to the lids, care being taken to keep them apart until dry. A few applications in the twenty-four hours is often sufficient to arrest the development of the sty. RICHARD NEALE, M.D.

914. *Marchand on Bilateral Hemi-amaurosis and Hemiparesis.*—F. Marchand, in Grafe's *Archiv (Centrall. für Med. Wiss.*, March 24), had the opportunity of *post mortem* examinations in three cases of bilateral hemi-amaurosis. In all, he found unilateral disease of the brain; in the first, a tumour in the right temporal lobe; in the second, embolism of the Sylvian artery, which had induced softening of the left optic tract; and in the third, a similar condition of the occipital lobe. The author has also collected twenty-two cases in which unilateral disease of the brain has been recorded. These he arranges under two headings—those in which the symptoms were due to lesion of the optic tract on one side; and another series in which the defect of vision was caused by a unilateral central lesion of the optic thalami and occipital lobes. Lesions of the optic tracts were found on one side in seven cases; in four there were tumours, in two softening, and in the third hæmorrhage. In three cases of lesion of the optic thalami, one was tumour, one softening, and one hæmorrhage. In twelve cases of lesions in the occipital lobes, six were softening, two from apoplectic cysts, and four were tumours. This last group included, for the most part, persons of advanced age.

915. *Samelsohn on the Anatomy and Nosology of Retrobulbar Neuritis (Amblyopia centralis).*—A. von Graefe has described under this name several forms of disease, the characteristic symptom of which is central darkness. The primary seat of the affection is to be sought in the trunk of the optic nerve, although it is not clear whether it consists in an inflammatory condition, or in a partial descending atrophy. Herr Samelsohn (*Archiv für Ophthalm.*, Band xviii.; and *Centrall. für die Med. Wiss.*, Dec. 16), out of six thousand six hundred and thirty-two cases of eye diseases, has noted one hundred and fifty-four of disease of the optic nerve. Of these, twenty were cases of retrobulbar neuritis, and thirty-seven of toxic amblyopia. In one case that Herr Samelsohn had observed during life, he had the opportunity of a *post mortem* examination. The patient, aged 63, died of heart-disease. The portion of the optic nerve within the cranium was examined by the microscope. The nerve-fibres at the periphery had a healthy appearance, while in the centre there were seen the results of interstitial neuritis. At its anterior portion there were traces of inflammation seen in grey atrophy of the nerve-fibres, as a result of the obstruction in the optic canal. At the point of entrance of the central vessels in the atrophic part the orifice was no longer circular, but flattened or wedge-shaped. The connective tissue was forced up into the central canal. The farther the nerve was traced from the papilla, the atrophy was found to involve the lateral fibres. The retina at this point was so thin that scarcely a trace of nerve-cells remained, while the surrounding retinal structure was normal. The atrophic process could be traced back to the districts of the convolutions of the brain forming the optic centres. Among the causes of retrobulbar neuritis are two principal groups, the influence of cold, and of poisoning by alcohol, and tobacco. These noxious agents effect morbid stimulation of the interstitial textures. The first symptom of the change consists in a cloudiness in vision; this is gradually followed by central darkness, which, however, is seldom absolute. Improvement takes place from the periphery towards the centre; the means by which this has been obtained is iodide of potassium in large doses, with gentle inunction.

W. B. KESTEVEN, M.D.

916. *Mauthner on the Influence of the Electric Light on the Human Eye.*—In discussing the value of any particular source of artificial light, says Professor Mauthner (*Wien. Allgem. Med. Zeit.*, No. 10, 1883), three qualities must be especially regarded:—1. The steadiness of the light; 2, the strength of the light; 3, its composition. From its complete failure in point of steadiness, the arc-light must be at once rejected from the category of lights suitable for the human eye. The incandescent lamp, on the other hand, deserves a prominent—if not a leading—position. As regards its strength or intensity, also, it fulfils all requirements, since it can be modified or intensified at will. The composition of the lights habitually used hitherto has shown a preponderance of yellow rays. In the electric light, however, the short-wave rays predominate—*i.e.* the violet rays. To the human retina, blue or violet tints are more agreeable than yellow, and hence from its composition, as well as from its steadiness and adaptability, the light of the incandescent lamp is especially adapted for the use of the human eye. Distinctness of vision and the perception of colour are both increased under the electric light—facts which might be theoretically

held to involve an overstrained retina. Such a theory is not, however, borne out by practical experience; it is only where the light employed is unsteady that any ill effects have been observed. It may be considered as an established axiom, that the brilliancy and composition of any light are as nothing, in respect of its value as an illuminating medium for ordinary uses, compared with its constancy and steadiness. In the incandescent lamp no combustion takes place, and hence no consumption or vitiation of atmospheric air is induced. From a theoretic point of view, therefore, no objection can be raised against the use of the incandescent electric lamp: its full value as an illuminator is probably not yet ascertained.

E. CLIFFORD BEALE, M.B.

917. *Mauthner on Embolism of the Arteria Centralis Retinae*.—At a meeting of the Imperial and Royal Society of Vienna on Feb. 23 (*Wiener Med. Blätter*, March 1), Dr. Mauthner spoke on embolism of the arteria centralis retinae. An embolism in this situation is most often situated partly in the ophthalmic artery, whence it can be washed on into one of the other arteries, so that the supply to the retina may be kept up, and sight restored, after sudden blindness. If the embolism be entirely in the arteria centralis, it cannot go back into the ophthalmic, but may pass on into one of the branches of the central artery. The result of this will be that part of the main artery will be free, and the branches to the macula lutea, which come off early from the artery, will also be free, so that central sight, and part of the field of vision, will be re-established. As regards treatment, therefore, in quite fresh cases of embolism, pressure ought to be applied to the eyeball, so that, if the blood be prevented from passing along the central artery, and the pressure in the vessels outside the eyeball be increased, the clot has a chance of being washed into the ophthalmic by the backdraught of the stagnant blood in front of it. But, if it cannot be driven back, it must be induced to pass more forwards, out of the main trunk of the central artery, and for this purpose the intra-ocular pressure must be lessened by sclerotomy.

918. *Köhler on Neuroparalytic Keratitis*.—At a meeting of the Society of German Physicians in Prague (*Wiener Med. Blätter*, March 1) Professor Köhler described a case of neuroparalytic keratitis observed by him, which seems to support the doctrine of the neurotic nature of corneal ulcers, depending on injury to the trigeminus. There are three different theories of their occurrence: 1. Deficient protection of the eyes, and want of proper moisture; 2. Direct disturbance of nourishment, and diminished resistance, whether hyperæmia from arrest of innervation, anæmia from over action of the vaso-motor constrictors, or failure of certain trophic functions; 3. The result of irritation of the so-called trophic nerves. The case cited was that of a woman of 56, who suffered from right facial paralysis, with lophthalmos and ectropion of the lower lid, without any affection of the cornea. A year later, when loss of sensibility appeared in the entire region of the trigeminus, a small ulcer was seen on the cornea, which, in spite of all treatment, soon spread itself over the eye, and in three or four weeks phthisis bulbi was complete.

919. *Hasner on Paralysis of the Oculo-Motor Nerve during Menstruation*.—At a meeting of the Society of German Physicians in Prague on March 2 (*Wiener Med. Blätter*, March 15) Professor

Hasner showed a case of periodical paralysis of the left oculo-motor nerve, occurring along with menstruation. The patient, a girl aged 17, was perfectly well until the first beginning of menstruation, when paralysis of the left eyelid appeared on the first day, and lasted, gradually improving, until the third day, when it disappeared with the cessation of the menses. This recurred at every menstrual period. The case seems to be unique, and Professor Hasner considers it to depend on hyperæmic pressure in the region of the root of the left oculo-motor nerve.

ALICE KER, M.D.

920. *Horstmann on Optic Neuritis following Hemorrhages*.—Horstmann (*Centraltbl. für Klin. Med.*, No. 3) states that loss of sight may occur immediately after loss of blood without ophthalmoscopic changes; or changes may supervene in from three to fourteen days, when there is optic neuritis with perhaps other changes, and the result is commonly permanent amaurosis. He relates the case of a woman who in the fourth month of pregnancy suffered from a violent metrorrhagia, which was followed by partial blindness on the fourth day. After eight days there was well-marked optic neuritis, with striated hemorrhages in the retina. Five months later, there was atrophy of the optic disc, with defective vision and narrowing of the visual area.

ROBERT SAUNDY, M.D.

DISEASES OF THE THROAT AND NOSE.

RECENT PAPERS.

921. LEFFERTS.—A Case of Syphilitic Laryngitis. (*Archives of Laryngology*, Jan. 1883.)
922. KIDD.—Congenital Syphilis of the Larynx. (*Brit. Med. Jour.*, March 17, 1883.)
923. FRANKEL.—Diagnosis of Tubercular Ulcer of the Larynx. (*Revue Mensuelle de Laryngologie*, Jan. 1883.)
924. ORMEROD.—Clinical Observations of the Larynx in Phthisis. (*St. Barthol. Hospital Rep.*, Vol. xviii., 1882.)
925. BREBION.—On the Velvety Aspect in the Interytoidenoid Space, and its Diagnostic Value in Laryngeal Phthisis. (Lyons, 1882, 4to.)
926. MOORE, NORMAN.—Chronic Inflammation of the Glottis. (*Brit. Med. Jour.*, Jan. 6, 1883.)
927. SCHWEIG.—(Edematous Laryngitis. (*Archives of Laryngology*, Jan. 1883.)
928. COATS AND KNOX.—Papilloma of the Larynx. (*Brit. Med. Jour.*, March 3, 1883.)
929. KNOX.—Epithelioma of the Larynx. (*Ibid.*)
930. SCHIFFERS.—Cancer of the Larynx. (*Revue Mensuelle de Laryngologie*, Jan. 1883.)
931. DELBASTAILLE.—Carcinoma of the Larynx. Extirpation of the Larynx. (*Gaz. Méd. de Strasbourg*, No. 12, 1882.)
932. BERGMANN.—Extirpation of the Larynx. (*Deutsche Med. Wochenschr.*, Aug. 26, 1882.)
933. JOCHELSIN.—Successful Extirpation of Larynx and Pharynx. (*Centraltbl. für Chir.*, No. 37, 1882.)
934. MARGERY.—Total Extirpation of the Larynx. (*Archives Ital. di Laryngol.*, 1882.)
935. WAGNER.—Ossification of the Right Arytenoid Cartilage. (*Archives of Laryngology*, Jan. 1883.)
936. SEMON.—Removal of a Pin from the Larynx by Internal Operation. (*Brit. Med. Jour.*, April 21, 1883.)
937. DE LA SOTA.—A Bone Impacted in the Subglottic Portion of the Larynx. (*Archives of Laryngology*, Jan. 1883.)
938. KOCH.—Foreign Body Lodged at the Bifurcation of the Trachea. (*Revue Mensuelle de Laryngologie*, May 1883.)

939. GAREL.—Recent Works Relative to Nervous Aphonia or other Bilateral Paralysis of the Muscles of the Larynx.

940. SEMON.—Bilateral Paralysis of the Glottis-openers and Compression of the Trachea, in a Case of Tumour of the Thyroid Gland. (*Brit. Med. Jour.*, 1883, Vol. i., p. 542.)

941. LECOINTRE.—Isolated Paralysis of the Ary-arytenoid Muscle. (*Revue Mensuelle de Laryngologie*, Feb. 1882.)

942. SCHNITZLER.—Double Paralysis of the Recurrent Nerves. (*Monatsschr. für Ohrenheilkunde*, 8, 1882.)

943. COUPARD.—Paralysis of the Vocal Cords by Pressure of Enlarged Glands. (*Monatsschr. für Ohrenheilkunde*, No. 8, 1882.)

944. SEMON.—Differential Diagnosis of the various forms of Laryngitis in Children. (*Ibid.*, No. 10, 1882.)

945. GOIX.—Retrolaryngeal Abscess. (*Société des Sciences Médicales*.)

946. STEVENSON.—Notes on Tracheotomy. (*St. Bartholomew's Hospital Reports*, Vol. xviii., 1882.)

947. BUTLIN.—Notes on Cases from the Department of Diseases of the Larynx at St. Bartholomew's Hospital. (*Ibid.*, Vol. xviii., 1882.)

948. CHAPMAN.—Use of Cold in Diseases of the Upper Air-Passages. (*Archives of Laryngology*, Jan. 1883.)

949. MARGETSON.—A new Electric Throat-Lamp. (*Brit. Med. Jour.*, Feb. 3, 1883.)

950. MOORE, NORMAN.—Carcinoma of the (Esophagus. (*Ibid.*, Jan. 6, 1883.)

951. MARSH.—Cancerous Stricture of the (Esophagus : Gastrostomy : Death by Extension of the Disease Eight Weeks after the Operation. (*Ibid.*, March 31, 1883.)

952. PARKER.—Malignant Stricture of the Pharynx. (*Ibid.*, March 24, 1883.)

953. MACKERN.—The Treatment of Chronic Granular Pharyngitis by the Galvano-Cautic Method. (*Archives of Laryngology*, Jan. 1, 1883.)

954. MESSITER.—Hæmorrhage from the Tonsil : Ligation of Common Carotid Artery. (*Brit. Med. Jour.*, April 7, 1883.)

955. SCHROTTER.—Cicatricial Membranes of the Retro-nasal Cavity. (*Monatsschr. für Ohrenheilkunde*, Nov. 8, 1882.)

956. DEBLOIS.—Hypodermic Medication in Nasal Catarrh. (*Archives of Laryngology*, January 1883.)

957. BRANDEIS.—Catarhal Headaches and Allied Affections. (*Boston Med. and Surg. Jour.*, Vol. cxviii., No. 14.)

958. BABER.—Cases of Nasal Polypus projecting into the Naso-Pharynx. (*Lancet*, Jan. 27, 1883.)

959. TRÉLAT.—Case of Polypus of the Nasal Fosse. (*Revue Mensuelle de Laryngologie*, Jan. 1883.)

ART. 921. *Lefferts on a Case of Syphilitic Laryngitis: Chondritis: Gummata of the Neck: Perforation and Formation of a complete Laryngeal Fistula: Tracheotomy: Cure.*—A man, 29 years old (*Archives of Laryngology*, Jan. 1883), contracted six years ago a chancre, followed in due time by secondary symptoms. Four years later, two large deep and intractable ulcers appeared, low down upon the posterior pharyngeal wall; they healed, and the disease remained latent until five months ago, when it made its reappearance as a diffuse gummatus infiltration on the right side of the neck. In due course ulceration occurred. Aphonia and difficulty of breathing came on. Four months afterwards, while applying a poultice, the patient noticed air escaping from the portion of the ulcer over the thyroid cartilage, and a little later coughed up a piece of the cricoid cartilage. Dr. Lefferts ascribes the fistula to the uniting of a double ulcerative action—the one beginning as a gummatus ulceration

of the neck, the other as a perichondritis around the cricoid cartilage. The edges of the fistula became unhealthy and sloughing, and necrosed cartilage was felt at its bottom. Dr. Lefferts laid it freely open, and found that it communicated with the trachea in the region of the cricoid cartilage; the anterior portion of which, together with two rings of the trachea, had been destroyed. The edges of the fistula were thoroughly scraped, and projecting and uneven portions of cartilage removed with the bone-scissors. A full-sized tracheotomy-cannula was introduced, and the fistula left to granulate. It healed soundly under the influence of iodide of potassium and biniodide of mercury in full doses; and, as soon as the condition of the larynx permitted it, the tracheal cannula was removed, when the wound rapidly closed, the patient making a good recovery.

922. *Kidd on Congenital Syphilis of the Larynx.*—Dr. Percy Kidd showed a girl aged 18 at the Royal Medical and Chirurgical Society (*Brit. Med. Jour.*, March 17, 1883). The cords were adherent at their anterior extremities by a web of a reddish grey colour. On the left was a small rounded red swelling. The cords moved freely, but the girl was almost aphonic. The epiglottis was thickened and jagged at its margins, and partially eaten away. There were other signs of congenital syphilis.

923. *Frankel on Diagnosis of Tubercular Ulcers of the Larynx.*—Dr. Fränkel, in a paper read before the Medical Society of Berlin (*Revue Mensuelle de Laryngologie*, Jan. 1883) says that from a review of the subject we might believe it impossible to diagnose tubercular disease of the larynx. He thinks, however, that not only the characteristic, but even the rare forms, can generally be recognised. In many cases the lenticular tuberculous ulcer is quite characteristic; the tubercle is first situated altogether under the epithelium, and forms an ulceration which generally has a tendency to spread superficially. The edges are not cut, but they always allow the indentations arising from the newly infiltrated small granulations to be seen. These can be seen much more plainly on the living than on the dead. The ulcer is surrounded by an inflammatory zone, in which grey and submiliary deposits may often be discovered. In cases where the ulcer is not plain enough to be distinguished, auscultation, percussion, or the result of treatment may settle the doubt. If these fail, the laryngeal secretion must be examined for bacilli. In fifteen cases Dr. Fränkel succeeded in obtaining the secretion, and in thirteen was able to diagnose from the first examination. Care must be taken not to get any secretion from the lungs at the same time. The patient must be made to cough gently until the mucus is separated, and it can then be removed from the ulcer with a brush.

926. *Moore on Chronic Inflammation of the Glottis, Trachea, and Larynx.*—This specimen was shown by Dr. Norman Moore at the Pathological Society (*Brit. Med. Jour.*, January 6, 1883). The patient, aged 26, died of phthisis. The parts were much thickened, but no tubercle was discovered in any part of the larynx. The lungs contained tubercle and cavities.

927. *Schweig on Edematous Laryngitis.*—The author himself was the subject of this attack (*Archives of Laryngology*, Jan. 1883), which came on after having for some weeks been attending a number of cases of diphtheria. He suffered for four days with headache and general malaise; the pharynx then became inflamed and swollen, and the larynx edematous. There was complete inability to swallow.

Free cauterisation of the tonsils with chromic acid produced great relief, but the laryngeal œdema became more marked, and rectal alimentation was resorted to. The larynx was scarified, and all parts affected were painted with a saturated ethereal solution of iodoform. Relief was immediate, but the next day the parts were more thoroughly scarified, the iodoform continued, and recovery was complete five days after.

928. *Coats and Knox on Papilloma of the Larynx removed by Partial Thyrotomy.*—At the Glasgow Pathological and Clinical Society, Drs. Coats and Knox (*Brit. Med. Jour.*, March 3, 1883) showed a papilloma, of the size of a large bean, that had been growing from the under surface of the left vocal cord for thirteen years. The patient was 41 years old. The chief symptom was complete loss of voice. The attachment of the growth was too extensive to admit of forceps being used. Tracheotomy and plugging of the trachea having been performed, the cricoid cartilage, crico-thyroid membrane, and lower two-thirds of the thyroid cartilage were divided, and the growth removed by curved scissors without injury to the vocal cords. The voice was restored.

929. *Knox on Epithelioma of the Larynx.*—This specimen was also shown by Dr. Knox at the same meeting of the above society (*Brit. Med. Jour.*, March 3, 1883). It was taken from a man aged 26, in whom it had grown with great rapidity, causing much dyspnoea. A tracheotomy-tube had been worn some months before death. The growth had destroyed part of the cricoid cartilage, and had perforated the œsophagus.

930. *Schiffers on Cancer of the Larynx.*—Dr. Schiffers (*Revue Mensuelle de Laryngologie*, Jan. 1883) adds a contribution to our knowledge of laryngeal cancer. Symptoms are quite insufficient for diagnosis, and will probably remain so. Cachexia is seldom seen. Pain is often entirely absent. Respiratory trouble may be slight, or may not exist. Microscopic examination is often necessary. Treatment may be the only means of diagnosing by exclusion. Glandular enlargement is always present when the cancer is situated upon the external surface of the larynx; it may be entirely wanting in the case of intrinsic cancer. A man, 53 years old, first noticed hoarseness of voice in March 1881. He consulted Dr. Leferts in November 1881, for a troublesome cough and slight muco-purulent expectoration. He had grown thin and weak. He was anæmic, but not cachectic. His constitution had been robust. There was no history of syphilis. On laryngoscopic examination, there was considerable swelling of the left side of the larynx, obscuring the vocal cord. There was no ulceration. A few days later a pinkish mass about the size of a pea was visible, a tiny piece of which was removed and found to be epithelial cancer. A large gland existed under the anterior border of the sterno-cleido-mastoid muscle, and there were several smaller ones in the left supraclavicular triangle. Nothing could be seen externally, and pressure caused no pain. Towards the middle of November, respiration became impeded. Tracheotomy was recommended, but the patient delayed entering the hospital. In December respiration became much worse, and he felt some trouble in swallowing. In a few days he died of syncope before tracheotomy had been performed. At the necropsy a voluminous tumour was found occupying the left side of the larynx, and there were secondary deposits in the lungs.

931. *Delbastaillé on Carcinoma and Extirpation of the Larynx.*—Dr. Müller reports upon the above paper in the *Gaz. Méd. de Strasbourg*, No. 12, 1882. In April 1881, extirpation of the larynx was performed by Professor von Winiwarter for an adeno-carcinoma of the larynx, with diffused epithelial infiltration. There was no return eleven months after the operation. The patient did not use her artificial larynx, finding that deglutition was impeded thereby. She wore a fenestrated tracheal cannula, communicating by the opening with the pharynx, and provided with a mouth at its external orifice. She breathed quite freely and could swallow both liquids and solids with ease. Articulation was almost without sound, but was sufficiently distinct for her to be heard and understood. Of the forty-three cases of extirpation of the larynx hitherto published by Dr. Delbastaillé, thirty-two have been undertaken for carcinomatous, six for sarcomatous growths, and two for tertiary syphilis. Of the six performed for the removal of sarcomata in only one has the growth returned, the other patients up to this time having remained free six years, two years, seventeen, fifteen, six, and four months respectively. In the removal of carcinomata the prognosis is less favourable; of the thirty-two cases published, there are only two in which the patient has remained free eleven months, the frequency and rapidity of the return being almost always due to the great extent of the lesion and invasion of the neighbouring parts. The mortality, moreover, is much influenced by septic pneumonia, this having been the cause of death of nearly all the patients who have succumbed in the course of the first few days after the operation. To avoid the entrance of foreign bodies into the air-passages, Dr. von Winiwarter brings the anterior wall of the œsophagus over and in front of the trachea, and fixes it with sutures to the cutaneous wound. To avoid septic pneumonia, the parts are dressed with iodoform and covered with iodoform gauze. Practised early, in the absence of glandular infiltration, and with the employment of iodoform to remove the danger of septic pneumonia, Dr. Delbastaillé considers that total extirpation of the larynx should cease to be considered as an audacious experiment.

935. *Wagner on Ossification of the Right Arytenoid Cartilage: Separation and Expulsion following Thyrotomy for the Removal of a Papilloma.*—This case is reported in the *Archives of Laryngology*, January 1883. A man, aged 53, had for six months suffered from slight hoarseness, cough, and a tickling sensation in throat. A large papilloma, covering the anterior third of the right vocal cord, was discovered; but he declined to have it removed. A year later a remarkable change had taken place. He suffered from constant dyspnoea and frequent attacks of glottic spasms. The growth now covered the entire right side of the larynx. Tracheotomy and thyrotomy were performed. The thyroid cartilage was ossified, and had to be divided with a saw. While using the curette for separating the growth, Dr. Wagner was struck with the apparently thickened condition of the mucous membrane covering the anterior surface of the right arytenoid cartilage, and feared that the nucleus of a recurrent growth might exist in that locality. The patient quickly recovered from the operation. About three weeks later, Dr. Wagner observed on the anterior surface of the right arytenoid cartilage a greyish spot, which he thought was a recurrence of the growth, but which proved to be the cartilage protruding through

its coverings. The patient subsequently brought the ossified arytenoid, stating that he had expelled it during a fit of coughing.

936. *Semon on Removal by Internal Operation of a Pin from the Larynx.*—This paper was read before the Clinical Society (*Brit. Med. Jour.*, April 21, 1883). The patient was aged 13. The pin was swallowed in November 1881. No immediate serious symptoms followed; but during the next twelve months he had several paroxysms of pain in the left side of the throat, difficulty in swallowing solids, and spasmodic cough. The pin was discovered projecting about one-eighth of an inch out of the left ary-epiglottic ligament; the parts in its neighbourhood were tumefied, and the left cartilage appeared fixed. The voice was normal: there was no dyspnoea. Dr. Semon removed the pin with the forceps, but the arytenoid cartilage remained immovable. Three months after the operation, the mobility of the left half of the larynx had much improved, but Dr. Semon did not think there would be complete reparation. Special attention was called to the fact that, although there had been immobility of one half of the larynx for months there was not the slightest alteration in the voice or respiration.

937. *De la Sota on a Bone Impacted in the Subglottic Portion of the Larynx.*—A boy (*Archives of Laryngology*, Jan. 1883) swallowed a bone while eating his supper: spasmodic attacks of cough and dyspnoea ensued. Three weeks later Dr. de la Sota saw with the laryngoscope the bone in the subglottic portion of the larynx, and tried to extract it with Fauvel's forceps, but failed. The symptoms became so severe during the following night, that tracheotomy was resorted to. For the next six or seven weeks, repeated attempts at extraction were made. At the end of that time, it was observed that the bone had changed its situation. During a spasmodic attack of coughing that same night it became dislodged, and was thought to have been swallowed. The patient was, however, unable to breathe through the larynx when the tube was closed, without bringing on the former suffocative attacks. On removing the cannula, the bone was seen lying flat at the bottom of the opening covering the posterior wall of the trachea, where the lower extremity of the cannula had stopped it. It was fortunately extracted without any accident. The bone was half a millimètre in diameter and 18 millimètres between its furthest corners, which were very sharp.

938. *Koch on a Foreign Body lodged at the Bifurcation of the Trachea.*—The patient, a woman aged 49 (*Revue Mensuelle de Laryngologie*, May 1883), while drinking soup, swallowed a piece of bone, and was almost choked. A sensation of swelling inside the throat, pain in swallowing, and spitting of blood ensued. Fifteen days afterwards slight dyspnoea came on, and the breath became foetid. Two months afterwards, on laryngoscopic examination, Dr. Koch discovered a foreign body apparently occupying the subglottic space and immovably fixed. Laryngo-tracheotomy was performed, but the crico-tracheal region was found empty. On searching lower, a bone was found at the spot where the trachea bifurcates, which by forcible coughing was expelled into the tracheal wound. Its vertical diameter was 19 millimètres, its horizontal from right to left 16, and its horizontal antero-posterior diameter 6 millimètres.

939. *Garel on some Recent Works Relative to Nervous Aphonia or other Bilateral Paralysis of*

the Muscles of the Larynx.—In seven cases published by M. Desplats (*Jour. des Sciences Méd. de Lille, Lyon Médicale*, Dec. 17, 1882) external faradisation in two cases and internal faradisation in one was followed by immediate relief of symptoms. In other cases several sittings were necessary. Galvanism has produced a marvellous effect in a number of cases where faradisation has failed. M. Massei brought forward this fact at the International Congress of Milan, and gave the following indications for their use. 1. When paralysis is of diphtheritic origin, both species of currents are applicable, but more particularly faradisation, as it acts more quickly. 2. For hysterical paralysis, each must be tried by turns; when the one has completely failed, the other may succeed. 3. The galvanic current is alone indicated in rheumatismal paralysis; as also in those forms that are the consequence of muscular efforts (artists, orators, &c.). The current must not be employed but by the intralaryngeal method; it must be feeble, the application short, and the interruptions frequent.

940. *Semon on Bilateral Paralysis of the Glottis-openers and Compression of the Trachea in a Case of Tumour of the Thyroid Gland.*—Dr. Semon showed this specimen at the Pathological Society (*Brit. Med. Jour.*, 1882, Vol. i., p. 542). It consisted of the larynx and thyroid gland removed from the body of an old gentleman. The patient had had noisy inspiration, free expiration, and unimpaired voice. The laryngoscope corroborated the symptoms. Tracheotomy was performed, and the patient shortly died. The posterior crico-arytenoids were atrophied and fatty. The paralysis was due to pressure upon the laryngeal nerves by the growth.

941. *Lecointre on Isolated Paralysis of the Ary-arytenoid Muscle.*—Dr. Lecointre (*Thèse de Bordeaux*, 1882, *Revue Mensuelle de Laryngologie*, Feb. 1882) reports ten cases of this rare affection, four of which occurred in his own practice. Seven occurred in adults. The characteristic sign by the laryngoscope was that, when the patient sounded E, the vocal cords came into contact in their two anterior thirds or anterior fourths; the posterior third or fourth remaining apart for a greater or less distance according to the degree of paralysis. Electricity directly applied to the ary-arytenoid muscle gave the best results.

945. *Goix on Retrolaryngeal Abscess.*—The author's conclusions (*Société des Sciences Médicales*) are as follows. 1. Primary acute retrolaryngeal abscess is a phlegmonous laryngitis from inflammation of the connective tissue under the lateral grooves of the larynx. 2. The symptoms are fever, pain in the larynx, hoarse and feeble voice, stenosis of the larynx and dysphagia, in a patient exempt in other respects from any affection of the larynx, pharynx, or neck. 3. The treatment consists of tartarated antimony in increasing doses; flying blisters; tracheotomy, and after tracheotomy evacuation of pus.

948. *Chapman on the Use of Cold in Diseases of the Upper Air-passages.*—Dr. Chapman's methods of applying cold (*Archives of Laryngology*, Jan. 1883) are: 1. To the exterior of the larynx by ice-bags; 2. The use of frozen wine; 3. Iced spray; 4. The double nasal catheter made like a double urethral catheter, through which a stream of very cold water may be made to run for any length of time; or a simpler and more effective method consists in the use of a very narrow and elongated inhaler packed in ice and salt through which a

stream of cold air is forced by a hand-bulb. This inhaler gives his patients a dry, cold air, like that of a clear cold winter day. The diseases for which Dr. Chapman considers the application of cold suitable are: 1. Malignant affections of the larynx, perichondritis, tubercular laryngitis, laryngeal diphtheria; 2. Acute laryngeal and pharyngeal rheumatism, a name given by Dr. Chapman to an affection found among public lecturers and others who largely use the muscles of the throat; 3. Cases of acute congestion of the upper air-passages, due to an irregular circulation and to the changeful atmosphere of spring and autumn; 4. Chronic nasal stenosis due to all causes except actual hyperplasia of tissues and abnormal formations.

949. *Margelison on an Electric Throat-Lamp.*—Dr. Margelison exhibited an electric throat-lamp at a meeting of the Leeds and West Riding Medico-Chirurgical Society (*Brit. Med. Jour.*, Feb. 3, 1883). It was of the incandescent type, and had been used by him since October last. It is about the size of a walnut, and can be held in the mouth for two minutes without discomfort.

950. *Moore on Carcinoma of the Œsophagus.*—This specimen was shown by Dr. Norman Moore at the Pathological Society (*Brit. Med. Jour.*, Jan. 6). It occurred in a man aged 56, and had given rise to symptoms for eight months. The growth had infiltrated the whole wall of the Œsophagus, and was adherent to the lung at one spot where a perforation existed. The lung was here pneumonic. Twelve cases of carcinomatous stricture of the Œsophagus had been examined at St. Bartholomew's in fifteen years. All were males. In six the lower, in five the middle, third was affected. In four secondary growths were found in the lungs, in one in the heart. Exhaustion was the commonest cause of death; hæmorrhage was fatal in two, pleurisy in three, gangrene in one. The ages of the patients varied from 36 to 58.

952. *Parker on Malignant Stricture of the Pharynx: Spasm of Glottis: Tracheotomy: Gastrostomy.*—This case is reported in the *Brit. Med. Jour.*, March 24, 1883. The patient was a woman aged 34. She had difficulty in swallowing for a few weeks, and her voice was also affected. A malignant stricture was discovered at the lower part of the pharynx. Tracheotomy was performed, and subsequently gastrostomy. At the *post mortem* examination, the growth was discovered to be an epithelioma.

953. *Mackern on the Treatment of Chronic Granular Pharyngitis by the Galvano-Cautic Method.*—Dr. Mackern records (*Archives of Laryngology*, Jan. 1, 1883) cases of a severe form of this affection. They occurred in a country (Buenos Ayres) the climatic and hygienic peculiarities of which might possibly have influenced the form in which the affection manifested itself. The first patient, a lady 27 years old, otherwise healthy, had had for eight or nine years repeated attacks of tonsillitis, and continually suffered from dryness and burning sensation of the throat and weakness of voice. There was no obstruction or nasal intonation. All treatment had failed. The general surface of the posterior pharyngeal wall was pale, and was traversed by three large thin-walled veins, on the branches of which greyish elevations from one to two millimètres in diameter were situated. Very low down on the left side granulations as large as small peas, round and hard to the touch, were present. These were destroyed by the fine platinum point of Schœn's galvano-

cautery, heated to a dull red in four sittings. A good deal of pain and dysphagia followed each operation. In a few weeks the appearance of the throat had much improved, and all symptoms had disappeared. In the second case a gentleman, aged 32, had suffered for nearly two years with a continual tickling in the throat. On the posterior pharyngeal wall were a number of small granulations and numerous thin-walled veins ramifying in all directions. They were burnt off as in the preceding case, and the patient greatly benefited. In this case, after each application of the cautery, a certain number of untouched granules would disappear, which Dr. Mackern attributed to the destruction of the blood-vessels supplying them. In the third patient, a man, aged 30, the disease chiefly existed in the soft palate; the uvula was double its normal length, the tip and edges gelatinous looking. Upon it was a mass of tumefactions, resembling small boils. The parts returned to their normal condition after two or three applications of the cautery. In the fourth patient, a suffocative feeling and expectoration of mucus mixed with blood had existed for twenty years. There was extensive granular disease. The granulations were not so numerous, but were of large size and peculiar appearance. Large veins were seen ramifying in various directions. The insertion of the red-hot platinum point into a large œdematous-looking granule caused an audible noise; a few drops of blood followed, the granule collapsed, and the vein became turgid. Several other similar cases have come under the observation of Dr. Mackern.

954. *Messiter on Hæmorrhage from the Tonsil: Ligature of the Common Carotid Artery.*—The author, at the Midland Medical Society (*Brit. Med. Jour.*, April 7, 1883), showed a patient in whom he had tied the common carotid artery for hæmorrhage from ulceration of the tonsil. The ascending pharyngeal was thought to be the source of the bleeding.

955. *Schrötter on Cicatricial Membranes of the Retronasal Cavity.*—The author describes (*Monatssch. für Ohrenheilkunde*, No. 8, 1882) six cases where concentric cicatrices formed a sort of diaphragm partially or completely cutting off the retronasal cavity. The most severe form occurred in a patient 32 years old. Smell, taste, hearing, and speech were affected by it. The soft palate was shrunken into a smooth reddish membrane, which ran upwards towards the base of the skull. An aperture five millimètres long and three broad, obstructed by mucus, existed on the left side, and had been made with the galvano-cautery some years before. This condition of the parts could only be seen by the rhinoscope. There was no trace of scrofula or syphilis. Professor Schrötter, by means of the galvano-cautery, made a similar hole on the right side at the situation of the posterior orifice of the right nasal passage. At the end of two days the air passed and smell returned. A metal bougie was introduced by the nostril, and allowed to remain. The next day the aperture was much larger; a bougie was now passed through the other nostril, and the two bougies tied together in front of the nose, in order to widen the aperture. Eight days afterwards, the base of the skull and the septum could be well distinguished with the rhinoscope. In the second case the cicatrix was due to syphilis, in the third to chronic blennorrhœa, in the fourth to syphilis, in the fifth to ozena; in the sixth it was doubtful.

956. *Deblois on Hypodermic Medication in Nasal Catarrh.*—The author says (*Archives of Laryngology*,

Jan. 1883) that for nearly two years of daily treatment of nasal catarrh he has used every form of mineral and vegetable astringent without any lasting effect. He thinks their inefficacy due to the fact that the diseased membrane does not absorb the medicine properly. To obviate this he adopts a method of hypodermic injection of ergotin. He uses the following formula of Bartholow's: R ergotin, 15 minims; glycerine, 5 drachms; water, 11 drachms, modified by increasing the amount of water so that 5 minims of the injection contain $\frac{1}{2}$ grain of ergotin. He uses three shapes of needles; one straight, for direct use through the nostrils; one much curved, for use behind the soft palate; the third straight, with a small crook at the end, to reach behind any intervening object. Though this treatment has not fulfilled the author's expectations, it is very unusual not to find some effect from it. Many applications are necessary, and, in some cases, it is only by much perseverance that recovery is reached. The pain is but little. Hæmorrhage, though slight, is the most formidable obstacle, as it washes away much of the injected solution. Abscesses Dr. Deblais does not believe to have ever occurred after it. The treatment is not adapted for children; and many adults give it up from nervousness and intolerance of the slight pain. In a third class, it appears to fall short of a final and lasting effect. The author gives eight cases, of which five were apparently cured by this means; two were much relieved; one was not improved.

957. Brandeis on Catarrhal Headaches and Allied Affections.—In a paper read before the Medical Society of New York (*Boston Med. and Surg. Jour.*, Vol. cxviii., No. 14), Dr. Brandeis discussed the effect of acute coryza in causing headache. A gentleman, the subject of repeated attacks of acute coryza, suffered from great obstruction of the nasal passages, and the pain resulting was so intense as to cause complete prostration. The mucous membrane was very dry. The use of a few drops every hour of Hegar's fluid (carbolic acid, 1 drachm; alcohol, 3 drachms; strong aqua ammoniæ, 1 drachm; water, 2 drachms) relieved this and subsequent similar attacks very promptly. Chronic catarrhal rhinitis was also not unfrequently accompanied by more or less frontal headache. Dr. Brandeis had known of a number of cases of continued severe headaches, which were only cured after the nasal cavities had been restored to their normal condition. A lady had for ten years been scarcely free from frontal headaches. No treatment gave permanent relief. The nasal mucous membrane was thickened, and the turbinated bones considerably hypertrophied. The use of Hegar's fluid did not remove the pain. Insufflation through the middle meatus on both sides with a German sternutatory powder caused a violent attack of sneezing and profuse discharge of mucus. The symptoms were at once relieved, and permanently cured, by the same treatment, repeated at intervals of three days. In one case paroxysmal neuralgia was dependent upon hypertrophy of the turbinated bones; in another of continued headache, referred to the base of the brain and occiput, polypoid growths filled the postnasal space on both sides, the pain being relieved when these were removed.

958. Baber on Cases of Nasal Polypus projecting into the Naso-pharynx.—Dr. Cresswell Baber (*Lancet*, Jan. 27, 1883) relates three cases of nasal polyp projecting into the naso-pharynx. The first patient, a woman aged 32, had suffered from deafness,

vertigo, and discharge from the ears, and all her life had been subject to an offensive discharge from her nose. The left nostril was so narrowed by deflection of the septum, that the polypus could not be well seen from the front; but by posterior rhinoscopy it was discovered projecting through the left choana. Voltolini's palate-hook was employed for aiding the examination, but caused so much irritation that it could not be borne. The polypus was cut off by the cold wire snare, the loop being guided by the left forefinger introduced into the naso-pharynx. After the growth had been divided it could not be removed, owing to its size, through the nostril, and had to be pushed back into the pharynx, whence it was ejected through the mouth. The second case was similar to the preceding. A woman aged 48 had a feeling of something falling down her throat from the nose; it kept her awake, and produced great dryness of the throat. A polypus was seen occupying the upper part of the left nostril. Posterior rhinoscopy was extremely difficult, on account of the proximity of the velum to the posterior pharyngeal wall; but it was just possible to see the polypus in the left choana. Voltolini's hook could not be used. On palpation, a firm round swelling could be felt hanging down in the naso-pharynx, and was removed as in the preceding case. Two months later, the patient returned, complaining of discharge from the left nostril. After applying various remedies without avail, a small rounded swelling, of the size of a split pea, was found on the right side, attached to the septum nasi. This was successfully removed by the cold wire snare. In the third case (that of a young woman) a polypus hung down below the velum, and palpation showed that it arose from the left posterior naris. It was also removed by a wire loop, as in the former cases. It measured nearly two inches in length and one inch from side to side.

959. Trélat on a Case of Polypus of the Nasal Fossæ.—The patient (*Revue Mensuelle de Laryngologie*, Jan. 1883) presented a mucoid polypus of the nasal fossæ and neighbouring sinuses, which had perforated the lacrymal bone where it simulated a lacrymal tumour. M. Trélat removed the growth as follows. After making Nélaton's incision, he partially resected the superior maxillary bone, turning it outwards. He then applied the thermo-cautery to the prolongations in the maxillary, frontal, ethmoidal, and sphenoidal sinuses, and removed without any difficulty the entire growth. The wound healed by the first intention.

W. J. WALSHAM.

DISEASES OF CHILDREN.

RECENT PAPERS.

960. TILLMANN'S. Tumour and Fistula of the Umbilicus. (*Deutsche Zeitschr. für Chir.*, Band xviii.)

961. EISENSTEIN and WIDERHOFFER. Melena Neonatorum. (*Allgem. Wien. Med. Zeit.*, 1882 and 1883.)

962. WEIHE.—Discharge of Ascaris Lumbricoides through an Umbilical Abscess. (*Berliner Klin. Wochenschr.*, Feb. 26.)

963. DEMME.—The Diagnostic Significance of Tubercular Bacilli in Childhood. (*Berliner Klin. Wochenschr.*, April 9.)

964. SOLTSMANN.—Case of Cysticercus Cerebri in a Child One Year Old. (*Centralbl. für die Med. Wiss.*, March 14.)

965. MORTON.—On Spina Bifida. (*Brit. Med. Jour.*, Jan. 1883, p. 82.)

966. BARLOW.—Combination of Rickets and Scurvy. (*Brit. Med. Jour.*, March, p. 619.)

967. ECKERT, ALEXANDRA.—On Invisible Cutaneous Perspiration in Children, in Health and in the Febrile State. (*Wratsh*, 1882, No. 42, p. 706.)

968. FELSSENREICH.—Laparotomy in the Newborn (*Wiener Med. Blätter*, March 22.)

969. TROISIER.—On Infantile Syphilitic Pseudo-Paralysis. (*Le Progrès Méd.*, No. 19, 1883.)

970. BIRCH-HIRSCHFELD.—The Icterus of Newborn Children. (*Virchow's Archiv*, Band lxxxvii.)

971. MEYER.—Cyanosis from Congenital Closure of the Aortic Orifice. (*New York Med. Record*, April 21.)

972. VON HOFFMANN.—The Placental Origin of Congenital Heart-Disease. (*Trans. of German Med. Congress*, No. 2.)

973. CHERON.—The Treatment of Vulvo-Vaginitis in Female Children. (*Jour. de Méd. de Paris*.)

ART. 960. *Tillmanns on Tumour and Fistula of the Umbilicus*.—Dr. Tillmanns, of Leipzig, reports in the *Deutsche Zeitschr. für Chir.*, Band xviii., the following case, which he believes to be unique, of congenital prolapse of gastric mucous membrane through the umbilical ring. The patient was a lad, aged 13, who presented just over the navel a tumour about the size of a walnut, and covered by deep red mucous membrane. This growth seemed to be attached to the umbilicus by a very thin pedicle. It was irreducible, and its size remained uninfluenced by coughing or by firm manual pressure over the abdomen. From the mucous surface of this tumour there was a secretion, very abundant on digital examination and after each meal, of a turbid and very viscid fluid having an acid reaction, and possessing the chemical and physiological characters of the secretion of the gastric glands. The epidermis of the skin around the tumour was macerated, and, as it were, digested by the action of this discharge. No visible orifice could be discovered on the surface of the tumour, and there was no history of any portion of fluid food or of fecal matter having ever been seen there. The tumour was first observed on the separation of the stump of the umbilical cord on the sixth day after birth. The midwife, in tying the cord, noticed that it was unusually thick near its fetal attachment. The growth increased slowly in size for about nine years, and then remained stationary. Dr. Tillmanns diagnosed this condition as one of irreducible prolapse of gastric mucous membrane, connected with the stomach by a thin and no longer permeable pedicle. Chloroform having been administered to the patient, the tumour was removed by the knife. No bad symptoms followed the operation, and the lad was soon discharged. The diagnosis was confirmed by microscopical examination of the tumour, which was found to be made up of the different coats of the stomach. The central portion was composed of the serous, subserous, and muscular layers, whilst the outer covering was formed by the mucous and submucous layers. The form of an abundant glandular element indicated that this prolapse had taken place from the pyloric extremity of the stomach. This, Dr. Tillmanns states, had evidently been a case of congenital umbilical rupture containing a gastric diverticulum, a portion of which had been constricted by the ligature applied by the midwife to the umbilical cord, and had thus been cut off, leaving an exposed mucous surface. The pedicle, it is supposed, had been gradually reduced to a very thin cord by the pressure of the margins of the umbilical ring. Dr. Tillmanns has failed in finding any report of an analogous case. In all other cases

that have been recorded of prolapse of mucous membrane through the umbilical ring, the protruded part had been derived either from the small intestine or from a patent urachus. This paper concludes with an interesting analysis of recorded cases of such pathological conditions of the umbilicus, as are due to persistence of the vitello-intestinal duct and of the urachus.

W. JOHNSON SMITH.

961. *Epstein and Widerhofer on Melæna Neonatorum*.—Dr. Epstein, of Prague, discusses this subject (*Allgem. Wien. Med. Zeit.*, No. 49, 1882), and points out that the occurrence of hæmorrhage from the stomach and intestines of new-born children is by no means uncommon. He considers that a distinct disposition to hæmorrhage from various organs must be recognised as belonging to the first few days of life. This disposition is made manifest or increased, when either disturbance of circulation, or disease of vessels, or of the blood itself, is present. The notable alteration in the circulation which takes place at birth must therefore be regarded as a principal cause of the hæmorrhage, and especially in cases of protracted labour, or of children born in a state of partial asphyxia, or of weakly children with atelectasis of the lungs. Various conditions have been found in the gastro-intestinal mucous membrane: hyperæmia, hæmorrhagic erosions, ulcerations, and actual hæmorrhage. In many cases, where the mucous membrane of the stomach has been found sprinkled with small ecchymoses, small rounded ulcers have been discovered; and these have by some authors been regarded as the real cause of melæna neonatorum, the ulcers themselves being brought about by thrombosis or embolism of the gastro-duodenal vessels, secondary to thrombosis in the umbilical vein. This is probably, however, the rarest cause for the hæmorrhage; the most common cause being the hyperæmia and temporary congestion of the finer capillary vessels. Although ulceration may take place with extreme rapidity after birth, it would appear that it is usually of intra-uterine origin; and several cases are recorded, where such ulceration has led to actual perforation of the intestine or stomach. Another group of cases is formed by those of children infected with septic diseases or the subjects of hereditary syphilis. In the latter cases the hæmorrhage may be the only evidence of the disease, the liver being found free from any syphilitic mischief. In the cases in this group, the prognosis has been clearly shown to be unfavourable. About half of the cases end fatally, and the immediate cause of death is usually the hæmorrhage itself. A few cases, however, recover with marked rapidity.

Professor Widerhofer records an interesting case of melæna neonatorum (*Allgem. Wien. Med. Zeit.*, No. 4, 1883), in which syphilitic manifestations were very distinct, and where hæmorrhages had taken place from other than mucous surfaces, the case in many respects reminding one of hæmophilia or of purpura. Such cases he regards as due to the specific affection of the blood. The prognosis is bad, and treatment by hæmostatics is of no avail.

E. CLIFFORD BEALE, M.B.

962. *Weihe on Discharge of Ascaris Lumbricoides through an Umbilical Abscess*.—Dr. Weihe, of Bad Oeynhausen, relates the following case in the *Berliner Klin. Wochenschr.*, Feb. 26. A child, four years of age, had from birth a projecting navel, which, through crying and coughing, had become still

more prominent. From four months old, the child had been subject to ulcerations of the navel which, however, readily healed. From its first year it had occasionally voided ascarides lumbricoides, in a living state, into its bed. Vermifuges were frequently given. An abscess formed at the umbilicus, the child's health being perfectly good. Hot fomentations were applied, and in three days the abscess opened spontaneously, evacuating pus, feces, and several of the worms (ascarides lumbricoides). The fomentations were continued, and doses of santalin administered, the mother affirming that only two worms passed by the bowels after this medicine was given. About a dozen were subsequently voided through the abscess, which then rapidly healed. A fistula from the intestine had in all probability existed, and formed the channel of exit for the ascarides.

963. *Demme on the Diagnostic Significance of Tubercle-Bacilli in Childhood.*—The observations hitherto placed on record with reference to bacilli of tubercle are derived from the disease in adults. Dr. Demme, of Berne (*Berliner Klin. Wochens.*, April 9), submits parallel researches pursued in cases of disease in children, noticing at the same time the difficulty that exists in obtaining expectoration from children under three years of age. The investigation was carried out in forty-four cases of tubercular disease. In six of these (tubercular meningitis and kidney disease) the examination was microscopic. In the remainder the sputa, or feces, were examined a few days before death. The ages of the majority of these patients were from one to four years, and smaller proportion from five to ten years. The earliest age was eighteen weeks. It was a point of much interest and importance to watch the development of phthisical disease, from measles or whooping-cough, after the first detection of bacilli in the expectoration, and the proportional rapidity of the disease, in relation with the greater or less abundance of bacilli. In three cases of acute miliary tuberculosis, the bacilli were only discovered after death in one instance, and in the other two they were in the sputa only two or three days before death; confirming the statement of Lichtheim that the expectoration in acute miliary tuberculosis does not contain bacilli. Bacilli in considerable abundance were found in cases of lupus; also, in a case of ozæna in an hereditary tubercular constitution, the tubercle-bacilli were found in the mucous surface of the nostrils. This patient died, after a short illness, of tubercular meningitis. Miliary tubercles were found in the course of the vessels of the membranes, and tubercle was found in the substance of the cerebrum and cerebellum. The lungs were free from tubercular disease, as were also the abdominal viscera. In the tubercle of the pia mater, a scanty sprinkling of bacilli was found. Referring to the preceding observation, Dr. Demme remarks that tubercular disease of the mucous membrane of the nostrils is seldom, if ever, seen by itself alone. In this case, the author suggests the transmission of the bacilli from the nares by the way of the vessels to the meninges.

964. *Soltmann on a case of Cysticercus Cerebri in a Child One Year Old.*—Dr. O. Soltmann (*Centralbl. für die Med. Wiss.*, March 14) relates the following case. A child, 1 year old, was seized with vomiting, convulsions, and squinting, and suddenly died. The *post mortem* examination revealed a rickety state of

the osseous system. In the middle of the grey substance of the gyrus fornicatus was found a tumour of the size of a pea (a cysticercus); one also in the left corpus dentatum, and two smaller tumours in the cortex of the left posterior lobe on its under surface, near the fissura calcarina. No *tenieæ* were found in the intestines. The author finds only one case of this kind at so early an age. Fleischmann records a case of cysticercus of the brain in a child aged 2 years.

W. B. KESTEVEN, M.D.

965. *Morton on Spina Bifida.*—Dr. James Morton, in the *Brit. Med. Jour.*, Jan. 1883, p. 82, in writing on cases of spina bifida, draws attention to the extreme danger of treating these cases, but recommends early treatment by injection. Contrary to what might be expected, the injection ought to be made very carefully in lumbar cases, as the openings there into the spinal canal are large, allowing the fluid to run further than is desired. After injecting a spina bifida, it is usually necessary to wait three weeks or longer if the tumour be shrinking. The success attending this mode of treatment has been great, but extreme care is necessary in so critical an operation.

966. *Barlow on the Combination of Rickets and Scurvy.*—In the *Brit. Med. Jour.*, March 1883, p. 619, in a paper read at a meeting of the Royal Medical and Chirurgical Society, Dr. Barlow describes a disease occurring in young children, which he calls 'acute rickets.' A typical case is given in full detail. The parallelism of the disease with scurvy was shown both on anatomical and on clinical grounds. Mr. Page also recorded a case of an infant, aged 9 months, who presented subperiosteal hamorrhages of three long bones; these, Mr. Page thought, were probably scorbutic, occurring as they did in a rickety infant, that had been fed from birth on Swiss milk and artificial foods.

RICHARD NEALE, M.D.

967. *Eckert on Invisible Cutaneous Perspiration in Healthy and Febrile Children.*—Dr. Alexandra Eckert, in the *Vratch*, 1882, No. 42, p. 706, publishes the results of her observations on thirty healthy children from two to fourteen years of age, and on twenty-seven suffering from various febrile diseases (ten cases of typhoid fever and mixed typhous forms, six of relapsing fever, four of scarlatina, three of measles, and four of chronic suppurative fever). The age of the febrile children varied from eighteen months to thirteen years. The measurements of invisible losses by the skin were taken after Weyrich's hygrometric method, somewhat modified by the author, as may be seen from her paper in the *Mejstnarodnaia Klinika*, 1882, November, pp. 1-29, in which she gives a detailed account of her experiments on healthy children. The conclusions at which the author has arrived are summed up thus.—*a. For Healthy Children.*—1. Invisible loss of water by the skin in children proceeds with greater energy than in adults. 2. The loss is greatest in children of younger age (under five years), and gradually becomes less as age, height, and weight advance. 3. All conditions being equal, any rise of barometric pressure increases loss of water by the cutaneous surface, while any increase of the humidity of the surrounding air inhibits invisible perspiration. *b. For Febrile Children.*—1. In the febrile state, invisible perspiration is augmented. 2. In enteric fever, the greatest loss of water by the skin coincides with the period of maximal mean daily temperature; afterwards invisible perspiration decreases with the

fall of febrile temperature; and, in the period of convalescence, it descends considerably below the normal level. 3. Similarly, in the course of relapsing fever, there is observed more or less considerable increase in invisible perspiration during the attacks; having reached its maximum at the time of crisis, the amount of evaporation rapidly falls, though, during the first twenty-four or thirty-six hours after the crisis, it remains still rather increased above the standard. During the apyretic intervals and after the termination of the disease cutaneous loss of water falls below the usual level. 4. In scarlatina invisible perspiration is considerably increased. [Details referring to the observations on febrile children may be found in Dr. Eckert's paper in the *Wratsh*, 1883, Nos. 2, 3, 5, 7, 9, and 10. According to the author, literature contains only three special works on invisible cutaneous perspiration in children—namely, one by Dr. Vasilovsky (*St. Petersburg Inaugural Dissertation*, 1876), and two by Dr. Camerer, in the *Zeitschr. für Biologie*, 1878, vol. xiv., and 1880, vol. xvi.—*Rep.*]

V. IDELSON, M.D.

968. *Felsenreich on Laparotomy in the New-born.*—At a meeting of the Imperial and Royal Medical Society in Vienna (*Wiener Med. Blätter*, March 22), Dr. Felsenreich showed a child, two weeks old, on whom he had performed a radical operation for the cure of umbilical hernia. The birth had been easy and natural, and the child itself was strong and healthy, with no other malformation. A tumour of the size of a lemon was situated in the abdominal wall, the umbilical cord being attached to its summit. The separation between the recti muscles was eight centimètres long and four centimètres broad, and contained intestines and the margin of the liver. Twelve hours after birth, the operation was made in the usual way, the hernial sac being attached to the edge of the skin-wound, which was closed by twelve silk sutures, and dressed with iodoform. The operation was completed in twenty minutes, without much sign of pain on the part of the child, which took the breast immediately afterwards, and had a normal stool on the second day. The progress of the case was very satisfactory throughout, although the healing of the skin was somewhat slow.

ALICE KER, M.D.

969. *Troisier on Infantile Syphilitic Pseudo-Paralysis.*—Troisier (*Le Prog. Méd.*, No. 10, 1883) records a well-marked case of the pseudo-paralysis caused by an alteration in the osseous system of newly born syphilitic infants originally described by Parrot (*Arch. de Phys.*, 1871-72, p. 319; *Ibid.*, 1876, p. 133; and *Le Prog. Méd.*, 1877 and 1878). The child, aged 7 weeks, was admitted with its mother and presented well-marked signs of congenital syphilis, roseola, coryza, copper-coloured patches, alopecia, ulcers on the buttocks and face, and cachexia. The left upper extremity hung powerless, but there were feeble movements in the fingers, and when the arm was flexed and extended the biceps perceptibly contracted; this contraction could also be produced by pinching the skin of the arm; sensibility was normal. Voluntary movements persisted elsewhere; there was no facial paralysis. This state had existed eight days before admission. The child was seen by M. Parrot, who regarded it as a well-marked example of the condition described by him, the paralysis being due to the separation of the epiphysal cartilage from the upper extremity of the humerus, in consequence of syphilitic alterations in the bones. The

child died the evening of its admission. The left humerus presented an abnormal mobility of the epiphysis, and in longitudinal section the separation was obvious, the space between being filled with a purulent looking material, which under the microscope was seen to be composed of bone and cartilage cells and débris of fibro-cartilage. The epiphysis was held in position by the periosteum only. The diaphysis had undergone gelatiniform softening and atrophy of its cancellous tissue, the atrophy affecting specially the upper portion. The remainder of the bones presented slighter degrees of the same change. In addition, there were perihepatitis and perisplenitis. The brain and spinal cord were quite healthy.

970. *Birch-Hirschfeld and Hofmeier on Icterus of New-born Children.*—Birch-Hirschfeld (*Virchow's Archiv*, 1882, Band lxxxvii.) attributes the icterus of newly born children to an oedema of Glisson's capsule causing compression of the bile-ducts. This oedema is the consequence of the diminution of pressure in the portal system, produced by section of the umbilical cord. This cause is favoured by weakness on the part of the infant, or delay in ligaturing the cord. This view is supported by the statements that bile-acids have been found in the pericardial fluid of children who have died in this condition; and, on the other hand, Hofmeier (*Zeitschr. für Geburtsh. und Gynäkol.*, Band viii.) regards the jaundice as both hæmatogenous and hepatogenous. The blood-corpuscles are known to be destroyed in great abundance during the first days of life, and hence arises hæmatogenous jaundice; there is also an excessive secretion of bile from this destruction, which may also irritate the bile-ducts, whence the oedema noticed by Birch-Hirschfeld. Chloroform predisposes the child to be jaundiced, by its action on the blood-corpuscles.

971. *Meyer on Cyanosis from Congenital Closure of the Aortic Orifice.*—Meyer (*New York Med. Record*, April 21, 1883) records the case of a male infant which lived twenty-seven days. It was noticed to be short of breath from birth, and in the third week became cyanosed. The dyspnoea and cyanosis increased, and when it was seen two days before death were very marked, the cyanosis extending over the whole body. There was no radial pulse, though the pulsations of the dorsalis pedis artery could be readily counted, and numbered 135. There was a loud blowing systolic murmur in the neighbourhood of the second and third ribs, to the right of the sternum. The heart was removed through a small incision, no further dissection being obtainable. The pericardium contained three-quarters of a drachm of clear serum. The heart-muscle was dark blue. The right side of the heart was dilated; the foramen ovale was patent; the pulmonary artery was twice the normal size; the ductus arteriosus was pervious; the left auricle was one-third of the size of the right; the walls of the left ventricle were half an inch thick, and its cavity was large enough to hold a small pea; the muscoli pectinati were fused into a solid mass. Mere traces of the chordæ tendinæ were to be seen. The aortic orifice was completely closed; there was no trace of the semilunar flaps. The aorta terminated at the base of the heart in a blind sac. The septum ventriculorum was complete. The circulation was carried on by the two auricles and right ventricle, the systemic circulation being supplied from the pulmonary artery by the ductus arteriosus.

ROBERT SAUNDY, M.D.

972. *Von Hoffmann on the Placental Origin of Congenital Heart-Disease.*—Dr. Von Hoffmann records (*Trans. of German. Med. Congress*, 1882) a case of congenital closure of the semilunar valve. The child suffered at birth from cyanosis, atelectasis, and great irregularity of the heart's action, and died from suffocation on the third day. The placenta had been previously examined, and had been found to be the seat of numerous recent and old extravasations. From these hemorrhagic foci, pathological products had been introduced through villous absorption into the foetal circulation, and had thus given rise to endocarditis. The placental extravasations had been caused by violent fits of coughing, from which the mother had suffered about the sixth month of pregnancy, which date also corresponded to the beginning of the foetal endocarditis. Von Hoffmann advises careful examination of the placenta in every case of childbirth, and believes that much light might thereby be thrown upon the etiology of diseases of the new-born.

973. *Chéron on the Treatment of Vulvo-Vaginitis in Female Children.*—M. Chéron believes (*Jour. de Méd. de Paris*) that the affection described in standard works and dictionaries under the name of 'vulvitis of female children,' is not a simple vulvitis, but always a vulvo-vaginitis. A bad state of health, due to faulty nutrition or unhealthy surroundings, and local irritation from habitually uncleanly habits, cause and encourage infantile vulvo-vaginitis. This affection is characterised by an acrid thick and yellow purulent discharge, of sometimes a greenish yellow colour. It lasts for some time, but is innocent in character, and leaves the general health uninjured. In treating such cases, the lymphatic and herpetic diathesis of the patient must be taken into consideration, and also the local condition.

MEDICAL CHEMISTRY.

RECENT PAPERS.

974. EWALD.—The Acids of the Gastric Juice. (*Virchow's Archiv*, Band xc.)

975. ROBERTS, W.—A New Test for Albumen. (*Lancet*, Oct. 14, 1882.)

976. PAVY.—Ferrocyanic Pellets as a Clinical Test for Albumen. (*Brit. Med. Jour.*, Feb. 1883, p. 308.)

977. OLIVER.—Bedside Urinary Tests. (*Lancet*, Feb. 1883, p. 190.)

978. JOHNSON.—Picric Acid as a Test for Albumen and Sugar in the Urine. (*Brit. Med. Jour.*, March, p. 504.)

979. LÉPINE AND GUÉRIN.—Incompletely Oxidised Sulphur in Urine. (*Revue de Méd.*, 1882, p. 606.)

ART. 974. *Ewald on the Acids of the Gastric Juice.* Ewald (*Virchow's Archiv*, Band xc., Heft 2), referring to Berthelot's discovery of the behaviour of acid solutions when shaken up with ether, and to Richet's application of this method to the detection of the acids of the gastric juice, says that he has not been able to confirm Richet's figures, and finds that there is no such definite and wide distinction between organic and inorganic acids in their behaviour as would permit a hard and fast line of demarcation. Moreover, he finds that, while in simple solutions these results are tolerably constant, in organic mixtures—e.g. with pepsine or serum-albumen—this is no longer so; and he comes to the

conclusion that the method is quite inapplicable to the problems Richet has tried to solve; on other grounds, he concludes that no organic acid is present in fresh pure gastric juice, and that no free leucin or leucin combined with hydrochloric acid is present in the same or in a watery extract of the gastric mucous membrane.

975. *Roberts on a New Test for Albumen.*—Dr. W. Roberts (*Lancet*, Oct. 14, 1882) recommends as a test for albumen a saturated solution of brine acidulated with a mineral acid, preferably hydrochloric. The test is applied like nitric acid by Heller's method. The precipitate produced is soluble in excess of urine. The brine test precipitates peptones from the urine and resin when copaiaba is being taken. [It is recommended as being free from the objections to nitric acid, but does not appear to possess either theoretically or practically the advantages of the simple test by boiling and adding acetic acid, which is free also from the disadvantages of nitric acid, and neither precipitates peptones nor copaiaba resin.—*Rep.*]

ROBERT SAUNDY, M.D.

976. *Pavy on Ferrocyanic Pellets as a Clinical Test for Albumen.*—Dr. Pavy, in the *Brit. Med. Jour.*, Feb. 1883, p. 308, communicates a paper which he sent to the Clinical Society, proposing the use of ferrocyanic test pellets to detect albumen. They are composed of sodic ferrocyanide and citric acid. All that is necessary in using the pellet is to crush it to a powdered state within a folded piece of paper, and to run the powder into an ordinary sized test-tube; the urine to be examined is poured to the height of about an inch. On simply agitating, a precipitate will appear when albumen is present.

977. *Oliver on Bedside Urinary Tests.*—Dr. G. Oliver, in the *Lancet*, Feb. 1883, p. 190, concludes an article on bedside urinary tests. Potassium ferrocyanide papers, in conjunction with citric acid, are stated to be the most reliable, compact, and portable means of detecting albumen in urine. Two new precipitants of albumen are also noticed, (a) potassium-mercurio-iodocyanide, (b) sodium tungstate. In order to neutralise acid urine, papers saturated with citric acid are used; papers saturated with picric acid have been also prepared, and have proved very successful. In conclusion, Dr. Oliver makes a few remarks on the manner of using the test-papers, and on their keeping power. Mr. Hawksley, of 357 Oxford Street, has been asked to supply a series of these papers gratuitously to any member of the profession who will put them to a careful trial, and communicate their observations to Dr. Oliver or to the *Lancet*.

978. *Johnson on Picric Acid as a Test for Albumen and Sugar in Urine.*—Dr. George Johnson, in the *Brit. Med. Jour.*, March 1883, p. 504, gives a paper in which it is shown that picric acid will detect the minutest trace of albumen. The paper also goes on to give a detailed account of the means adopted for an accurate quantitative test for sugar in urine, and a drawing is given of a new picrosaccharimeter made for Dr. Johnson by E. Cetti, of 36 Crooke Street, Holborn. The accuracy of the picric acid method of volumetric sugar analysis has been fully and fairly tested. The results of this process have been compared with those obtained by Dr. Pavy's ammonio-cupric method, and were found to be practically identical; in the majority of cases the ammonio-cupric process gives results slightly in excess of the picric acid method. This

excess is due to some non-saccharine ingredients in the urine which reduce cupric oxide but not picric acid. An account of a short discussion on the paper read at the meeting of the Clinical Society will be found in the *British Medical Journal*, p. 315.

RICHARD NEALE, M.D.

979. *Lépine and Guérin on Incompletely Oxidised Sulphur in Urine.*—MM. Lépine and Guérin (*Revue de Méd.*, 1882, p. 606) have investigated the states in which sulphur exists in urine. They find that 80 per cent. of the total sulphur is present either as sulphates or as conjugated sulpho-acids, whilst 20 per cent. exists in other and little understood states. They find further that 10 or 12 per cent. of the total sulphur is in a difficultly oxidisable condition, and that for every 100 parts of nitrogen present in the healthy urine there is invariably less than 2 per cent. of sulphur in this form. In febrile diseases the proportion rises to 3 or 3½, and in icterus to 4 or 5 parts of this difficultly oxidisable sulphur, to every 100 parts of nitrogen.

THOMAS STEVENSON, M.D.

NEW INVENTIONS.

ARTICLE 980.

FEARNLEY'S NEW METHOD OF APPLYING AIR-PRESSURE TO WOLFF'S BOTTLES.

Mr. W. FEARNLEY, May 5, writes in the *Brit. Med. Journ.* that the injection of blood-vessels plays so important a part in microscopic anatomy, healthy and morbid, and the present way of effecting it by the syringe is so difficult to acquire, and, when acquired, so uncertain in its results, that an exceedingly simple and efficacious way of doing it will be hailed with satisfaction by the profession.

The method of Ludwig has always been acknowledged as superior to injecting by the syringe, except for the one great obstacle—applying the necessary pressure—which had to be effected by elevating and depressing huge water-bottles, or by connecting the air-pressure bottle with a water-tap, and regulating the pressure as best one could, thus rendering the pressure almost as uncertain and irregular as the thumb-pressure of the syringe.

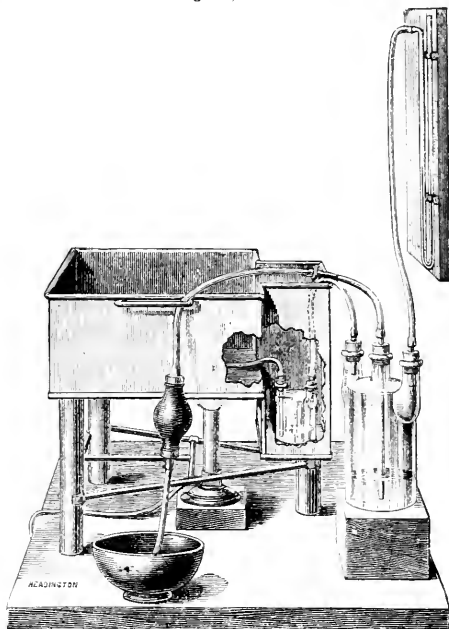
Mr. Fearnley's method is to apply the pressure with an ordinary Higginson's enema-syringe, as shown in the annexed engraving.

So even and delicate is the pressure by this method, that one arm of the mercurial manometer must be closely watched if movement of the mercury can be seen at all, whilst one entire compression of the barrel of the syringe raises the manometer a measured inch; so that, in injecting a small animal, such as a rabbit, for instance, a pint of water is amply sufficient.

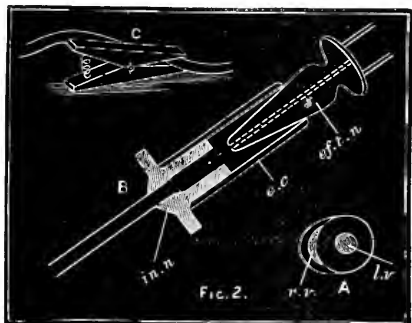
The following is Mr. Fearnley's description of the method of injection.

Suppose we decide upon injecting a rabbit, or a guinea-pig with Carter's carmine and gelatine mass, our steps are these. The bath is filled with warm water (which saves time), and a Bunsen's burner is applied beneath it to heat the water not below 100° F., and not much above 110°. Then, supposing we have our mass ready, we fill a sixteen-ounce Wolff's bottle with it, and secure the corks thoroughly, and place it in the deeper of the two departments of the bath. Not only must the mass bottle be always well immersed, but on no account is the efflux tube

for a moment to be allowed to get above the warm water, or the mass congeals, and there is a block.



Our next step is to chloroform the animal, and, immediately it is dead, to open the thorax with scissors, making an oval opening with its long axis across the thorax, taking care to keep as far as possible from the root of the neck, to avoid severing arteries that would give rise to leakage and waste of the mass. We now snip open the pericardium; seize the apex of the heart, and cut it off, when we



see the right and left ventricles, as in A, fig. 2. I use a nozzle, as in B, fig. 2, which has an elastic collar (e.c.), which is plugged by a nozzle, as here shown.

We now insert a nozzle as large or larger than the aorta, and, of course, for the arterial system, insert it in the left (round-holed) ventricle, until it appears well in the aorta. We now tie the heart-substance tightly round the nozzle with floss silk, or darning-worsted, the former being the better. On no account is hard string or thread to be used, as it either cuts the soft parts at the time of applying it, or when pressure becomes great. We now, to keep the water in the bath clear, wash out the thorax, and lift the animal into the bath, and, after allowing it to be in the hot water five minutes or so, we apply an inch of mercury pressure (*i.e.* a measured half-inch of either arm of the manometer), when, on removing the clamp on the efflux tube, C. fig. 2, air-bubbles are expelled; then comes the carmine mass, when we at once make the connection as seen in the diagram B, fig. 2. Air in the connection to interfere with the flow of the fluid is impossible, as air is displaced previously by the hot water. By seizing the animal's head with the left hand, and using our right hand in working the Higginson's syringe, the pale mouth is seen to blush, then to gradually acquire a dark red colour. We commence with a pressure of an inch of mercury, and gradually increase it up to six or even eight inches; or, taking one arm only of the manometer, from half a measured inch to four inches. This method is so simple, that I have never spoiled a single animal; indeed, one of the most famous preparers of microscopic objects, who has injected for years with the syringe, declared he had never seen an animal more beautifully injected than the very first animal (a guinea-pig) I injected by the above method. Organs are also easily injected by this method, especially when *in situ*.

The engraving is from a photograph of my apparatus, and the apparatus itself may be procured of Messrs. Swift and Son, 81 Tottenham Court Road, W.

DIETETIC NOVELTIES.

ARTICLE 981.

PURE FRENCH WINES.

HOLDING, as we do, that everything connected with the food of the people is a matter of vital interest to the medical profession, we have been induced to look into the present question of the consumption of French wines—more especially clarets—in England. The friends of temperance and dietetic reform have long been anxious to see light wine regarded, as it is in France, chiefly as an article of diet to be taken at meals. Now, if this is to be the case, one of the most important considerations is that there should be no room for doubt as to the positive genuineness of the article. We have had lately in the public press any number of statements as to the adulterations of French wines, and the fact of three or four deficient vintages in succession has no doubt had much to do with this. A late esteemed member of the medical profession (Dr. Druitt) has described the functions of claret as a beverage in the following words:—‘Bordeaux wines are of special service: they neither turn sour themselves, nor are they the cause of sourness in other articles of food. They increase the appetite, they exhilarate the spirits, and they tend to fill the veins with pure healthy blood.’ But, and it is this ‘but’ which is always cropping up, can we at the present time buy, at a moderate price, such a claret as Dr. Druitt is here speaking of? Well, we will give our readers the benefit of

our opinion upon the subject; and if in doing so we select one particular house for our illustration, it must be understood that it is solely because their extended and uniform manner of trading best suits the present purpose, although at the same time we assume that there may be many other houses who are equally correct in their dealings. Thus, taking a label of a large firm which has for many years made a feature of light wines, we find that a bottle of claret, price one shilling, is thus described:—‘This wine has been selected from wines produced in the Department of the Gironde. It possesses good body and bouquet, and its value can be proved by comparison. It is an excellent wine to drink at all times by itself, but it is softer and more satisfying when diluted with half or two-thirds of water.’ We have taken some pains to endeavour to verify the correctness of the guarantee thus given, and we are bound to say that we find the wine so guaranteed to be a perfectly sound, pure, and wholesome French wine, which, as a beverage, appears to us to answer exactly to the public requirements, to be cheap, palatable, and calculated to assimilate well with food. We are told that it is a far superior class of wine to that which forms the bulk of the *vin ordinaire* consumed abroad, and we can quite believe it. One friend, who professes to know at least a little of the trade, tells us that it cannot at the present moment be sold profitably at the price named. If so, that is the affair of Messrs. W. & A. Gilbey, and we shall be happy to leave that matter in their hands. Perhaps, however, the solution will be found in the fact that the extent of their business has necessitated their anticipating their requirements, and thus purchasing in advance of their actual immediate wants. We would only add, that so long as they and other traders can supply a fine wine such as that we have mentioned, and at a moderate price, it is of public interest to encourage its consumption, both upon grounds of health and temperance; in preference to the much stronger and less pure alcoholic liquors which still form the staple of consumption in this country.

MISCELLANY.

PRESERVATION OF VISION IN SCHOOL-CHILDREN.—Dr. Adolf Weber, in a report on the examination of eyesight in the higher schools in Darmstadt, lays great stress on the importance of the proper lighting of the schoolrooms. The windows should not reach lower than the heads of the children when standing, and where it is possible, especially in rooms for drawing or sewing, light should be admitted from the roof. Properly constructed benches and desks should be provided, and should be arranged in subdivisions according to the varying sizes of children in the same class. No class should last longer than three-quarters of an hour, and the intervening fifteen minutes should be spent in exercises for the children and in ventilating the class-rooms. The children should be carefully watched to prevent their getting into the habit of keeping their books or work nearer the eye than fourteen inches, and a reform of the writing characters (German) should be instituted. He lays stress upon the necessity of avoiding fine work, among which he mentions fine sewing, and he regards all sewing as detrimental to the children up to the age of at least 10 years. He recommends a strict medical supervision of every school, to be carried out at first by existing authorities, but eventually by a special medical officer. He finds short sight to increase very much during the school-going period of youth.

The London Medical Record.

ARTICLE 982.

KIRCHNER AND ASCHENBRANDT ON THE INFLUENCE OF THE NERVUS TRIGEMINUS ON THE HEARING ORGAN.

THE January number of the *Monatsschrift für Ohrenheilkunde, &c.*, gives a *résumé* of a monograph by Messrs. Kirchner and Aschenbrandt, of the Würzburg University, on the influence of the fifth nerve on the organ of hearing.

Investigators have hitherto made their experiments on this nerve either at its trunk or root, while the observations here recorded were the results of action on the third branch, which, on account of its distribution, gave them a more practical value to aural surgeons.

Neuralgia of the fifth nerve has long been connected with many functional disturbances in the ear, such as tinnitus and dulness of hearing; but Professor Weber Liel, of Berlin, was the first to point out, in his work on 'Progressive Deafness' (*guide* report in LONDON MEDICAL RECORD of Nov., 1874), that many of the so-called catarrhal affections of the ear owed their origin, in reality, to nervous influences. The power of the trigeminus in causing trophic, vaso-motor, and sensory changes was pointed out, so that there arose hyperæmia and swelling of the mucous membrane of the cavity, with paralytic conditions of the muscles of the tube, and chronic dilatation of the tympanic and intra-tympanic vessels.

Magendie had shown that section of the fifth nerve caused changes in the nutrition of the cornea; these arise, according to Meissner, from the destruction of the trophic fibres in the nerve-trunk; according to Snellen, from the loss of sensation in the bulb, which removes the guards against external noxious influences. The latter reason will not apply to the changes which occur in a closed cavity like the tympanic cavity.

Berthold observed that electric irritation caused contraction of the vessels of the tympanic membrane. To eliminate the influence of the sympathetic, he cut the vagus and cervical sympathetic, and found that, instead of contraction, dilatation of the vessels occurred. Believing that this might be caused by the irritation of the splanchnic in the medulla acting on the blood-pressure from the aorta, he cut the spinal cord close below the medulla oblongata, and now found that electric irritation of the trigeminus caused neither narrowing nor dilatation of the vessels. He concluded that the fifth nerve did not possess either vaso-dilator or vaso-constrictor powers, but that, through the injury to the trophic fibres which it contained, the changes in the tympanic cavity were called forth.

Considering that the methods employed on animals under the influence of curari or narcotics weakened the conclusions to be drawn therefrom, Messrs. Kirchner and Aschenbrandt made their investigations on cats, comparatively intact. Having laid bare the third branch of the trigeminus close to

the base of the skull, they cut the mandibular branch and acted upon it by means of Spamer's induction apparatus. With the first irritation caused by a weak current, lasting ten seconds, the vascular network of the cavity became plainly visible. This condition lasted several seconds, till gradually the mucous membrane became paler. When the irritation was repeated a second and a third time, the vascular injection was still more decided, and by lengthened irritation the entire membrane became livid. In a few seconds after the cessation of the current, it resumed its usual pale and moist condition.

While the dilatation of the vessels was present, and during the passage of the current, there was an increased secretion of thin watery mucus. This gradually lessened after the breaking of the current, and with the contraction of the vessels.

Simple division of the nerve did not cause any perceptible change either in the vascular fulness or the secretion of mucus.

The route by which the irritation of the operators caused the actions on the vessels and mucous glands is not yet determined; but experiments show that influences acting on the peripheral branches of the trigeminus have effects which correspond with observations seen in daily practice. With neuralgia of the branches of the fifth nerve, we see hyperæmia and inflammatory processes in the tympanic cavity, also conditions which point to changes in the acoustic, which pass away with the recovery from the neuralgia. As irritation of the spheno-palatine ganglion has been proved to cause increased secretion and temperature in the nasal cavity, and violent catarrh has been observed to arise in consequence of neuralgia of the second branch of the trigeminus, the authors consider that the otic ganglion and the third branch of the trigeminus may stand in the same relation to the mucous membrane of the tympanic cavity. W. LAIDLAW PURVES.

ARTICLE 983.

KONOVALOFF ON TRAUMATIC RUPTURES OF THE SPLEEN.

DR. T. D. KONOVALOFF, of Borisoglebsk, Tambov Government, reports (*Vracheb. Vedom.*, 1882, No. 25) five cases of traumatic rupture of the spleen, which came under his notice within the last three years of his practice amidst peasantry of this eminently malarial district. The patients (four women, one man) were aged from 30 to 40. All the cases presented strikingly identical features, which were these. 1. All the patients were in their usual health and at their usual work up to the very time of the injury. 2. In all the cases there was history of blows dealt by the fist (street-fight, wife-beating), death following immediately afterwards, mostly on the spot. 3. On necropsy, the spleen was found considerably enlarged, softened, easily friable, its capsule being wrinkled, its pulp of a dark cherry colour. 4. The ruptures were always multiplex, in two to four spots, and had the aspect of an irregularly broken line or irregularly shaped star. 5. They were invariably situated at the lower half of the organ, the greater lacerations always being found on the outer surface, while the slighter fissures were met mostly on the inner aspect, around the hilus. The edges generally were widely gaping, and lacerations penetrated more or less deeply into the parenchyma. 6. In all the cases there was con-

siderable hæmorrhage into the abdominal cavity, black coagula being found partly around the spleen, partly amidst the intestinal coils. In one case only there was found some amount of bruising of the integuments in the splenic region.

The author, who keeps in view exclusively the forensic side of these cases, discusses the question whether it is possible, *post mortem*, to diagnose traumatic from the so-called spontaneous ruptures of the spleen. As the most constant and characteristic features of the former, Dr. Konovaloff points out (1) multiplicity of the lacerations (two and more), (2) their broken and irregularly stellated outlines, and (3) their situation chiefly at the outer surface of the lower half of the organ (that is, at the part which is best accessible for a traumatic violence). [Dr. Sladkovsky, in the *Archiv Sudebn. Medic.*, 1886, Vol. i., basing his conclusions on seven observations, goes even so far as to assert that in traumatic cases there are invariably present several ruptures of the spleen, and in the spontaneous always only one superficial laceration. Unfortunately, similar assertions lose much of their practical value when one comes across such examples as Dr. M. Stepanoff's two cases, in each of which injury caused only *one* rupture of the spleen (*Vratch.* *Udom.*, 1879, No. 369, p. 7817), or as Dr. T. Gauenstein's case of spontaneous rupture of a malarial spleen, where there were found *two deep* lacerations (*Vratch.*, 1881, No. 36, p. 608).—*Rep.*]

V. IDELSON, M.D.

ARTICLE 984.

FOÀ AND TIZZONI ON REMOVAL AND REPRODUCTION OF THE SPLEEN.

AT the annual meeting, in 1882, of the Italian Medical Association, Prof. Pio Foà read a paper on the Physio-Pathology of the Spleen. Referring to the latest studies on the subject, and to his method of experiment, by which he carefully examines the omentum before proceeding to the removal of the spleen, he remarked that the action of the air does not seem much to be feared, since he only had two cases of septicæmia in the forty-five cases in which he operated on dogs. He speaks of the results of the removal of the spleen in anemic dogs examined at various periods with no result, as far as the new production of the spleen is concerned. Thus he had seen excessive functional activity of the marrow of bones follow the ablation of other organs besides the spleen. He has found often in healthy dogs nodules of the omentum, as well as in the gastro-splenic ligament. Cauterisation of the spleen gave rise to adhesions between it and the omentum in the cauterised points; there was no new production of nodules. The splenic pulp near the cauterised point shows a re-awakening of the hæmatopoietic energy. After ligation of the splenic artery and its branches he did not observe modifications of the spleen. Sometimes there was awakening of the hæmatopoietic activity. Partial amputation of the spleen is followed by swelling and hæmatopoiesis of the remaining part. He does not admit the conversion of the epiploon into splenic tissue; in fact, when the epiploon is removed even without any adhesions, cicatrization happens. He obtained no results from irritating the epiploon. He concluded as follows. 1. Re-formation of the spleen after removal is not proved by experiments. 2. Many pathological

facts in the spleen may be explained without assuming its new formation. 3. The production of nodules is independent of the state of the spleen and of the osseous marrow. 4. The spleen may be re-formed when it is partially removed. 5. The spleen is virtually only hæmatopoietic. 6. Even in the physiological state nodules are found in the omentum, while no pathological alteration of the spleen and hæmatopoietic organs exists at the same time.

At the same meeting (*Ibid.*) Dr. G. Tizzoni related seven cases of splenotomy in the dog. In two of these cases he observed diffused reproductions of the spleen in the great omentum and in other folds of the peritoneum, consisting of nodules containing nucleated red corpuscles in great number. Undoubtedly the spleen was normal in these cases: besides the large nodes, spots on the omentum were found, which represented the commencing formation of Malpighian corpuscles. The aspect of the nodules is that of newly formed spleen, follows the same course of development, is not limited to the omentum, but extends to other points—for example, the mesorectum and gastro-splenic ligament. In sixty dogs he found seven diseased spleens with simultaneous new production. The alterations found in the great spleen were of three kinds: (1) cicatrices here and there in the spleen; (2) a single cicatrix which divided the spleen in two; (3) simple cicatrix, to which the great omentum is adherent. He showed the drawing of a splenitis indurans. The new production of the great spleen took place around the affected part of the spleen, then as much in the gastro-splenic ligament as in the omentum when this had become adherent to these parts, and therefore he believed it impossible to do splenotomy without meeting with pre-existing nodes. He insisted on the fact that the newly formed spleen has the character of embryonic spleen, and follows a natural development, while in the new productions of the omentum from disease of the great spleen, the small nodules have the character of adult organs and are irregularly developed, perhaps because in this case the new production was surprised in a more advanced period. In experimental reproduction, the nodules always contain Malpighian corpuscles, while in pathological reproduction there may be even large nodules without corpuscles, and represented by simple infiltration of blood in a connective tissue with many venous vessels having thin walls. He showed also that the new formation of the spleen is the more abundant in proportion as the great spleen is affected, except when the great omentum is implicated in the lesion. As to the reproduction of the portions of spleen, he agreed with Griffini, that it proceeds from the omentum. To surprise the phases of development of the splenic reproduction away from the wound, he opened the abdomen at various periods, and demonstrated the successive appearance of nodules of spleen in the great omentum.

In conclusion, he admitted that the spleen can reproduce itself totally as much after removal as in disease of the spleen itself, when partial reproduction may take place through the medium of the great omentum. The probable conditions which favour these reproductions, total or partial, are the removal of irritating processes, and the employment of means which conduce to prompt cure; and, therefore, local reproduction is observed when the operation is done by the knife, and is wanting when a lesion is produced with more energetic means, such as caustic, &c. As to the interpretation which must be given to this

new formation of the spleen, Tizzoni has made new researches which lead him to conclude that the connective tissue, in various contingencies of the organism, returns to the embryonic state, and that reproduction of the described nodules, and the appearance of elements which have the nucleus disappearing and the protoplasm smooth and colourable with eosine, takes place.

Professor Foa stated that he had operated on forty-five dogs. He opposed twelve cases of removal of the spleen to Tizzoni's seven, in which, after the most rigorous examination of the epiploon before and after the operation, he found no regeneration of the spleen; in the smallest nodules thoroughly examined, he could not find Malpighian corpuscles. He said he could not accept the explanation of the development of the splenic pulp from hemorrhagic infarct around a Malpighian corpuscle. He said he had seen several cases of pathological spleen with nodes on the adherent omentum, but he insisted again on cases in which he had found nodules on the free extremity of the epiploon without adherence, and without any alteration of the spleen and hematopoietic organs. He was not able to accept any necessary connection between these nodules and any state whatsoever of the spleen.

G. D'ARCY ADAMS, M.D.

ARTICLE 985.

SAVAGE ON MARRIAGE IN NEUROTIC SUBJECTS.

DR. G. H. SAVAGE (*Jour. of Mental Science*, April 1883) contributes a paper on the marriage of neurotic subjects.

Opinions on this point appear to differ. Dr. Savage says: 'I find one set of physicians looking with horror upon the idea of anyone marrying who is markedly neurotic, whereas another class looks to marriage to cure nervous evils. By neurotic persons I mean those who have suffered from insanity, epilepsy, or grave hysteria, and the near blood-relations of such persons.'

Nevertheless, Dr. Savage thinks that it is possible for people to be in too robust a state of health as regards their nervous system. 'I am inclined to think,' he says, 'that if it were possible for us to select those who are to be married, and if we selected only those who are nervously stable for the parents of the next generation, the children might suffer from a want of adaptability. They might, in fact, develop from nervous stability into nervous rigidity.'

In support of this statement, we have only to look round amongst the families of our acquaintance, and see how often it happens that robust children are the offspring of a parent of highly nervous or even hysterical temperament, such parent usually being the mother, from whom it is supposed the children inherit more of good and evil than they do from the father. The introduction of new blood into a family of horses or cattle is always considered a desideratum, and those marriages contracted by persons of exactly opposite temperaments are usually looked upon as likely to lead to mutual happiness.

Passing on to details, Dr. Savage asks, 'Does marriage generally do good or harm in grave hysteria?' and he answers: 'It would be harmful in my experience, if every young hysteric were then and there married. The relief, if any, would be temporary, and the result to the developing

organism would be disastrous. I do not myself believe that hysteria is *generally* benefited by marriage. I admit I have seen one case, in which anorexia nervosa and extreme depression in a young single girl passed off after marriage and the birth of children. On the other hand, I have seen several cases in which the hysterical girl has become the insane mother, and the hoped-for cure by marriage has proved a delusive dream.'

Next as regards epilepsy, Dr. Savage writes: 'I should dread the effects of marriage upon an epileptic almost more than those who had been insane. The comparative rarity with which epileptics get well, and the mysterious causation of the whole epileptic condition, make it a dangerous experiment to recommend marriage for the relief of these unknown conditions.'

The combination of epilepsy and insanity is considered, as might be expected, to be far more dangerous than that between hysteria and mental disorder, both to the parents and their children. Dr. Savage says: 'An epileptic parent may, like Brown-Séquard's guinea-pigs, beget children who are epileptic or insane even. Therefore, in speaking of marriage with epileptics, one has not only the hopelessness of cure, but the danger of the offspring to be considered.'

'Next, and perhaps this is the question that will chiefly interest most of us, under what conditions are you to countenance marriage with either insane patients, patients who have been insane, or patients who have very strong nervous inheritance?' Of course, the answer to these questions must be influenced by the circumstances of each particular case. 'Before giving advice as to whether a patient should or should not marry after having had an attack of insanity, I think one should very definitely investigate the cause of the insanity and the nature of the attack, besides taking into consideration the nervous inheritance.'

The surrounding circumstances of the case ought also to be duly weighed. 'One question quite apart from the medical aspect of the case would have to be considered—that there are marriages and marriages; so that, if you could insure the prospect of comfort, that is, if you were able to see that the selected companion was suitable as far as years and means were concerned, the chances of maintenance of health would be greater than if there were great disparity of years and a certainty of poverty and anxiety to contend against.'

Concerning the delicate question as to whether or not means should be taken to prevent offspring from arising from the marriage of neurotic subjects, Dr. Savage says: 'I myself should strongly oppose such measures, unless the patient had had several attacks of insanity, or unless there were at least two children of the marriage.' 'Without children, too, the parents become egotistical, and egotism and insanity are not far removed.'

'Another point is when a patient may be married; that is, how soon after an attack of insanity. Most of us have seen cases in which the insane inheritance has been transmitted directly, and, if I may say so, immediately. I have seen three or four cases in which children have been begotten by insane parents who were suffering from acute insanity at the time of their begetting. Such persons are almost sure to be weak-minded, idiotic, or imbecile, from birth. On the other hand, the greater the distance there is between the attack and the begetting of the child

the less danger is there to the offspring. I am in the habit of saying that a general paralytic father rarely begets an insane child, unless that child is begotten during the active stage of the disease. 'The point, then, upon which I would insist, is that the danger to the offspring is directly in relationship to the active insanity itself—that a parent who has been insane may beget an insane child soon after recovery, before the attack, or during the attack of insanity, but that he may beget perfectly sane children in the interval.'

'To sum up the whole matter,' says Dr. Savage, 'one would say that marriage would relieve a certain number of hysterical cases, and that it is justifiable in a certain number of cases who have suffered from insanity. I should never advise marriage as a cure for hysteria, without warning the friends that it might or might not be beneficial, and that the good depends not only on the marriage, but on so many other circumstances. I should not oppose every marriage of those who had been insane, provided only one of the contracting parties had been so, and the other was of good physical health and not of nervous disposition.'

The profession cannot but feel grateful to Dr. Savage for this attempt to lay down rules for their guidance in giving advice concerning this most difficult subject.

HENRY SUTHERLAND, M.D.

ARTICLE 986.

BRAUN ON PUERPERAL INVERSION OF THE UTERUS.

THE following case is recorded with comments in the *Wiener Med. Blätter* for February 22. A primipara, 20 years of age, well nourished, but somewhat flabby and moderately plethoric, was delivered naturally of a healthy male child, weighing 3,150 grammes (111 ounces), about five hours after the rupture of the membranes, at 3.0 A.M. on July 1. A few minutes later, without any traction having been made on the umbilical cord, a bag of membranes filled with blood protruded from the vulva and soon burst, discharging an enormous quantity of blood, mostly fluid, followed immediately by the inverted uterus with the placenta partly attached to its surface. The attendant, whose hand had been gently rubbing the abdomen, felt it at the same time suddenly empty. The uterus was replaced within the vulva, the placenta detaching itself in the process, and taxis was applied with the flexor surface of the fingers of the left hand. The right wall, corresponding to the pressure of the four fingers, was reduced first, and the other followed at once. Friction was then applied to the uterine wall by the right hand on the abdomen, against the left in the uterine cavity. Two litres of a 2 per cent. carbolic solution were injected into the uterus, followed by four litres of cold water, and subcutaneous injections of ergotin were employed. The patient had lost more than 1,800 grammes (63 ounces) of blood, had almost lost consciousness, and was nearly pulseless. The lower extremities were, therefore, entirely enveloped in elastic bandages, the hips raised, and ether injections, tea with rum, &c., administered, until the pulse became moderately strong, and about 104 in the minute. The temperature was not taken on account of the necessity of keeping the patient warmly covered. Ice was placed on the abdomen, and no massage employed,

and the uterus contracted so well that five stools passed within the twenty-four hours without causing any attempt at inversion. In spite of the free administration of stimulants and fluid nourishment, by mouth and rectum, the heart's action increased until on the evening of the second day the pulse was 152, with a temperature of 36.2 C. (97.16 F.), and a disproportion between pulse and temperature was still present two weeks afterwards. The importance of the autotransfusion by means of the elastic bandages was shown by the subsequent history. When they were only partially loosened on the thighs after four hours, symptoms of threatening collapse necessitated their re-application in a quarter of an hour; the attempt some hours later to bandage an arm and set free one leg produced dizziness, and the bandages could not be fully removed until after nineteen hours.

Pyrexia began on the third day, the temperature rising to 41.3° C. (106.34° F.) with a pulse of 144. A complete remission on the tenth day was followed by a rigor on the eleventh, after which an evening temperature of 40° C. (104° F.) became the rule for two weeks. The anaemia prevented the use of febrifuges except in minimum doses. The above-mentioned rigor was followed in two days by an attack of erysipelas, spreading from the vulva over the nates and thighs, and disappearing simultaneously with the high temperature on July 28. Phlegmasia alba with thrombosis in both legs were quickly cured by the inunction of unguentum cinereum on the ninth, tenth, and eleventh days, 20 grammes ($\frac{5}{8}$ ounce) being used in all, and disturbance of sensibility and motility in both feet had nearly disappeared when the patient left the hospital on Aug. 30. She kept her bed until September 14, on account of anaemia and slight paresis of the legs, but when seen on September 17 she could walk easily without support. Although she did not suckle her child at all, she did not menstruate until November 1, when the flow was scanty, and lasted three days. When she was seen on November 8, the involution of the uterus was complete, and its position and mobility normal; the os admitted the finger tip for 1½ centimetres (about $\frac{1}{2}$ inch). The patient was still somewhat anaemic, but felt well, and had resumed her occupation of working a sewing machine in the end of October. Occasional tingling in the feet reminded her of her former nervous disorders.

The placenta weighed 600 grammes (20 ounces), with its accompanying clots; the cord was of normal length, and was inserted 4 centimetres (1½ inches) from the margin.

This case shows the operation of complete atony of at least a portion of the uterus in the production of inversion, which may then be induced even by the pressure of the abdominal muscles, so that it is not necessary to refer it always to external influences. The blood liberated by the partial detachment of the placenta collects between it and the uterine walls, flows into the membranes, and presses them down to the vulva, out of which they protrude, the blood behind meanwhile dilating the lower segment of the uterus. The sudden bursting of the membranes and escape of the blood causes the inversion of the distended uterus, a partial inversion having probably already begun at the uncontracted seat of placental attachment, which may have been aided by traction on the part of the membranes.

Inversion is not so rare in primiparae as has been imagined, and the following are the causes of its production in them.

1. Feebleness of uterine contractions from the length of the labour, even when it is terminated by forceps, is the first cause.

2. Attachment of the placenta to the fundus, which is more common in primiparae, predisposes to inversion.

3. The tense vaginal walls do not give under the downward force, and therefore do not so easily prevent inversion.

4. The narrow vulva serves to hinder the outflow of the blood, and so facilitates inversion through distension, and subsequent sudden escape of the blood.

In multiparae, a predisposition to inversion may be occasioned by adherent placenta in previous labours.

Alice Ker, M.D.

ARTICLE 987.

BLASI ON THERMOMETRY IN THE TUBERCULAR MENINGITIS OF CHILDREN.

A PAPER on this subject, read by Prof. Pio Blasi before the Royal Academy of Rome, is given in the *Gazz. Med. Ital. Prov. Venete*, April 21. His observations were founded on thirty-eight cases occurring in ten years in the Hospital of the Bambino Gesù, and in which the clinical history was controlled by *post mortem* examination. The thermometric curve in this disease is most variable, now very low, now rapidly rising to great pyrexia, or presenting short daily oscillations, irregular as to ascent and depression. In spite of this variability the author finds rules which render it distinctive. The medium is not above 39° C. (102.2° F.), the maximum observed was 41° C. (105.8° F.), when with tubercular meningitis acute miliary tuberculosis and pulmonitis were associated, and 40.9° (105.6° F.) in the final period of the disease. The great depressions noticed by the writer do not occur at the height of the disease, but in its last stage, especially when grave collapse is the forerunner of death. Bontan's assertion that the medium temperature is below the normal is not consistent with facts. Blasi finds the medium to be 39.3° (100.9° F.). The usual type of the curve corresponds to the remittent with evening augmentations. In 245 times, the temperature was found higher in the evening in 176, stationary in 18, lower in 51. The greater elevations were found in the commencement and towards the close of the disease. In the intermediate stages, the temperature was relatively low with slow pulse; a day or two before death, in the majority of cases, the highest temperature was reached. This fact, attributed by Hensch to paralysis of the caloric controlling centre, was only wanting in 9 of the 27 cases observed. Hyperpyrexia was observed when the inflammatory element predominated over the tubercular, or when pneumonia or eruption of miliary tubercle in other organs occurred to complicate the case. The lowest temperatures, on the contrary, were found when chronic phthisis, pulmonary or mesenteric, existed; nor does the onset of tubercular meningitis, in the course of ordinary phthisis, cause a further rise of temperature beyond that due to the primary disease. Among the cases distinguished by low temperatures, the author notes the frequency with which lesion of the cerebellum occurs under the form of more or less cascated solitary tubercles. In 15 cases in which were noted low temperatures between 38.8° C. (103.4° F.) as a maximum, and 36.9° C. (98.4° F.) as a minimum, in 10 the

autopsy revealed the presence of cerebellar tubercle. Where these tubercles were found the temperatures were always low. From this he admits the very probable, if not positive existence of a relation between tubercular lesion of the cerebellum and depression of the thermometric curves in tubercular meningitis. This fact, to which other observers have not drawn attention, is not met with in any other complication with anything like the same constancy.

The author confirms the want of rapport between the height of the temperature and the frequency of the pulse and respiration, and speaks of the difficulty of the differential diagnosis between tubercular meningitis and typhoid or subcontinuous fever, with predominance of cerebral phenomena or with simple meningitis. Lastly, he treats of the possibility, by the aid of the thermometer, of establishing the diagnosis or of learning approximately the duration of the disease. For example, one can speak almost with certainty of an inflammatory process affecting the meninges, when, pneumonia and miliary tuberculosis being excluded, the temperature is noted above 39° C. (102.2° F.). One can foresee with much probability cerebellar tubercles in cases of low temperatures, especially if one can exclude a form of concomitant chronic tuberculosis of the chest or abdomen. Thus, from the study of the thermometric curve one can have an indication of the stage of the disease and of its duration, keeping in mind its depression, together with slowing of the pulse in the intermediate stages, the elevation again before death, &c.

G. D'ARCY ADAMS, M.D.

ARTICLE 988.

TOLOCHINOFF ON ACCUMULATION OF PUS IN THE UTERUS.

PROFESSOR N. F. TOLOCHINOFF, of Kieff (*Vracheb. Vedomosti*, 1882, Nos. 533 and 534), describes that rare form of purulent accumulation in the uterine cavity which is occasionally met in old women far advanced in their climacteric period. This affection, references to which the author could find only in English literature (Tilt, R. Barnes, Matthews Duncan, Ashwell, Graily Hewitt), is characterised mainly by periodical discharge of offensive pus through the os, which remains pervious to a sound. The introduction of the latter is always accompanied by the escape of purulent fluid from the womb. The uterine cavity is invariably enlarged, its walls being more or less thinned. The uterus at the level of the internal os is often retroflexed or anteverted. The patients mostly complain of general weakness, and of constant or periodical pains low down in the pelvis. The periodical increase of pelvic pain coincides with the appearance of purulent discharge. The latter possesses very irritating properties, giving rise to colitis, distressing pruritus of the external genitals, chronic eczema of the thighs, &c. Many of the patients present yellowish pallor of the face.

Passing to the theory of these cases, Professor Tolochinoff comes to the conclusion that the affection results from uterine catarrh of long standing. Any slight obstruction (as caused by a flexion or initial cancerous consolidation of the cervical tissues) to the escape of uterine discharge may lead to retention of the secretion, with gradual distension of the thin walls of the atrophic senile womb. Under the influence of the air which still can penetrate through the pervious os, the retained catarrhal fluid

undergoes decomposition, acting very irritatingly on the mucous membrane, and producing ulceration with more or less abundant purulent secretion. (In the author's cases the quantity of pus discharged at a time was not more than one or two tablespoonfuls; but in Ashwell's case it was about ten ounces.)

The author details two of his cases of the affection in question, and the treatment they underwent. In one of the cases, Duncan's intra-uterine injections of nitrate of silver, Barnes' introduction of solid sulphate of zinc, and injections of tincture of iodine and salicylic acid, brought only slight relief. The author decided then to treat the uterine cavity as if it were an abscess. Accordingly, he introduced an intra-uterine pessary in the shape of a silver drainage-tube and daily washed the womb through it with one per cent. solution of carbolic acid. A considerable improvement both of the local conditions and of the general health followed. The occasional removal of the drainage-pessary was followed within two or three weeks by the return of pelvic pains, purulent discharge, and general symptoms. By the end of two years, complete recovery was seemingly obtained: the uterine cavity decreased from 8 to 6 centimetres; the discharge ceased, and did not reappear after taking out the intra-uterine tube. The other patient is still under observation. V. IDELSON, M.D.

ARTICLE 989.

THOMSON ON LIGATURE OF THE INNOMINATE ARTERY FOR SUBCLAVIAN ANEURISM.

In a recently published pamphlet, Mr. Wm. Thomson, of Dublin, has submitted to the profession a full report of his case of deligation of the innominate artery, together with such remarks and gleanings from the literature of this subject as may tend, it is hoped, to throw more light upon it, and to have some influence in helping to success in some future attempt of a similar kind. In this well-known case a tape ligature, as used by Mr. Barwell, was applied, under antiseptic conditions, to the innominate artery of a man, aged 49, who presented a large and violently pulsating aneurism of the right subclavian artery of about fifteen months' duration. The patient did well until the thirtieth day, when there was bleeding from the wound to the extent of about three ounces. Nine days later, very severe hæmorrhage took place. This was not renewed; but the patient died from exhaustion on the forty-second day from the date of the operation. At the time of the first attack of hæmorrhage, the wound had almost entirely healed, and there was but one small opening in the skin, which led into a small cavity above and slightly behind the right sterno-clavicular articulation, and containing about a drachm of pus. At the *post mortem* examination perforating ulceration, somewhat larger than a sixpence in area, was found at the bifurcation of the innominate into the subclavian and carotid arteries. The wall of the innominate was about two lines in thickness at the site of the ligature. The clot was firmly adherent to the walls of this vessel, and extended backwards through most of its length. The seat of constriction by the ligature was about a quarter of an inch from the cardiac margin of the ulcer. The walls of the artery at this point were not divided, and the ulcer had not taken origin at the seat of the ligature. The vessel was not occluded by adhesion of the inner surfaces, but a

chink remained at the ligatured portion, through which the clot was continued, and had been united to the clots in the subclavian and carotid. The coats of the innominate were undivided at the seat of constriction. Careful examination was made without success for traces of the ligature.

In this case, treatment by distal ligature was disposed of at the outset by the fact that no pulse could be found in the brachial and axillary arteries. Amputation did not seem to hold out any additional hope, because it was evident that a collateral circulation had already been set up, in which the vessels on the cardiac side of the aneurism were largely engaged. Ligature of the subclavian in its first part had been contemplated at an early stage of the disease; but, on the second visit of the patient, Mr. Thomson found that the aneurism had progressed inwards, and had probably invaded the artery close to its origin. It remained, therefore, either to abandon the case altogether, or to give the chance, slight though it was, of tying the innominate. To Mr. Thomson and those colleagues who gave him their opinions it was thought that the latter course was one which, in justice to the patient, ought to be taken.

Mr. Thomson, in answer to the condemnation of this operation by Erichsen, Gross, and Velpeau, holds that death occurring through a series of cases is no reason why we should desist from repeating an operation which, although attended by enormous difficulties, is, under the present conditions of surgery, by no means hopeless. Ligature of the innominate, it is believed, may be safely done. A careful study of the cases which have been published will show how very near many of them came to success. In a considerable proportion of cases more or less of firm clot was deposited, and that condition was present which is regarded as one of the essentials of success in deligation of an artery in its continuity. As death, in the majority of cases, has resulted from hæmorrhage, and this chiefly from ulceration of the ligature through the vessel, and as the possibility of obtaining obliterating clots in the innominate, subclavian, and carotid, or in the innominate and carotid has been shown, it only remains that, to make a long stride forward to success, we should use an antiseptic animal material which will not divide the vessel, but only keep its walls approximated for a sufficiently long time. In this case, though the old tale of hæmorrhage was repeated, there can be no doubt that it was not here set up by the ligature cutting through the vessel. This ligature held the vessel until a firm organised clot was formed; and if an ulcer had not formed, and this at a distance from the seat of ligature, the patient would have recovered. The history of the ulcer, Mr. Thomson states, is associated with the use of the drainage-tube, which had been left in for about six days, except when removed to be cleaned, and, when finally removed, had left behind it a sinus leading down to the bottom of the wound. This track holding some discharge had provided a nest of septic organisms when these unhappily got access, probably owing to the difficulty of keeping the dressing in accurate position on the neck. The vessel was thus subjected to the eroding action of pus, small in quantity though it was, as it lay in a pocket on its anterior surface. A large cavity is left after the operation is terminated. The approximated edges of skin unite and heal much more rapidly than the deeper parts, and the clavicle assists in preventing the soft tissues from falling together. To over-

come this formation of a cavity, which has happened in every case on record, and adds enormously to the risk, Mr. Thomson would, in any future case, apply carefully adjusted sponges outside the dressings, and over these light shot-bags, so secured as to exert constant and moderate pressure over the wound. Mr. Thomson holds that it is not necessary in cases like his to tie the carotid at the same time in order to cut off the reflux current of blood from contact with the seat of ligation on the innominate. In most of the recorded cases of deligation of the innominate, an occluding clot had formed up to the bifurcation of the innominate. In Smyth's well-known case, simultaneous deligation of the carotid did not save the patient from fearful hæmorrhage.

Mr. Thomson points out as a fact of very great interest, that the innominate in his case was not only not divided by the ligature, but that its walls were not adherent. The introduction of the antiseptic catgut ligature in the tying of vessels in their continuity may, it is hinted, demand a revision of the received views upon the essentials to success. It has been proved that this material need not cut through the artery, that it need not sever the internal coats, and that the simple irritation caused by the surgical closure of the artery is sufficient to render that closure permanent. On the other hand, however, it is no less clear that division of the inner coat does increase the rapidity of the adhesive process by presenting cut edges within the artery. It is thought that this effect may be secured, and at the same time a ligature used that will not wound or sever the outer tunica, by applying at first a suitable silk ligature to give all the advantage of the internal wound, and replacing this at once by a broad animal ligature drawn just tight enough to bring the wounded parts into close apposition, and to keep them there until union is perfected. This, however, ought only to be tried in a fairly healthy artery. Mr. Thomson also points out that, if it be true that the presence of a clot in a tied artery is not a necessity, the area of operative procedure may, perhaps, be widened with less fear than we might anticipate. The rule that we should avoid deligation in the neighbourhood of collateral branches is based upon the belief that no clot would be likely to form there, because of the recurrent circulation; and that secondary hæmorrhage would almost inevitably occur.

An abstract is given in this pamphlet of thirteen other cases in which the innominate alone was tied for subclavian aneurism, of three cases in which the same operation was performed for secondary hæmorrhage, and of three cases in which both the innominate and the carotid were tied for aneurism. The only case in which the patient recovered is that in which A. W. Smyth of New Orleans ligatured both the innominate and the carotid, and, subsequently, after profuse hæmorrhage on the fifty-first day, the right vertebral artery. With such a terribly disheartening record, one may well ask with Mr. Thomson, is ligature of the innominate justifiable under any circumstances? This is a question to which the author, fully realising the responsibility, would reply yes. He believes that it is possible to tie the artery with a ligature that will not divide its coats; that it is possible to occlude it and its branches with a permanent clot, to have an aseptic wound, and to avoid secondary hæmorrhage. The history of his case shows how very nearly it reached success, the patient having survived for forty-two

days, a period second only to that of the case recorded by Grafe. W. JOHNSON SMITH.

ARTICLE 990.

TRELAT ON CONGENITAL HERNIA.

IN a paper communicated to the 'Société de Chirurgie' of Paris on March 7, M. Trelat pointed out the gravity of congenital hernia. In this variety, the strangulation is apt to occur suddenly, and always has some special form and situation. The strangulation is usually situated at the inner or superior part of the inguinal canal, sometimes even within the abdomen; it is least frequently met with at the inferior extremity of the hernial sac, that is to say, at the junction of the vagino-peritoneal canal with the testicular tunica vaginalis. In strangulated congenital hernia, through difficulty in diagnosis, the surgeon is likely to delay in operating, and, by attempts at taxis, to effect 'either merely a temporary reduction, or a reduction *en masse*.' M. Trelat is of opinion that congenital inguinal hernia is of more frequent occurrence than is generally supposed, and that a number of varieties of hernial sacs described as being the results of complications, of contractions of lacerations of different kinds are, indeed, nothing more than congenital hernie.

Allusion is made in M. Trelat's communication to a recent inaugural thesis by M. Ramonède on the peritoneo-vaginal canal and strangulated peritoneo-vaginal hernia in the adult. M. Ramonède has dissected 215 adult male subjects, and has made out that in about fifteen per cent. of such subjects the vagino-peritoneal canal remains more or less patent. The proceeding employed by M. Ramonède in this investigation was more efficient than that employed with the same object by Camper, as he made injections, and thus obtained moulds like to those of the uterus obtained by M. Guyon. From the study of these models have been deduced the following facts, which seem to have much practical importance. The peritoneo-vaginal canal, according to M. Ramonède, presents:—1, at its origin in the interior of the abdominal cavity and within the fascia transversalis, a kind of funnel; 2, at the point where it traverses the fascia to penetrate into the inguinal canal, its first contraction; 3, in the inguinal canal itself, a dilatation; 4, at its exit from the canal, a second contraction not very well marked; 5, within the scrotum, another dilatation; 6, and finally, at the lower part of the canal, where it opens into the tunica vaginalis, there is a third and last contraction. The intra-abdominal portion of the canal may contain a loop of intestine, which loop might become strangulated at the very entrance of this funnel. Cases of this kind, however, are extremely rare; and, as a rule, the seat of strangulation in congenital hernia is either the superior or the inferior constriction of the vagino-peritoneal canal, most frequently the former.

The difficulty in the diagnosis of this form of hernia is the determination of its congenital nature. It will not suffice for this purpose to interrogate the patient and simply to inquire how long he has had a rupture. Though he may report that he was always ruptured, it does not follow that the hernia must be a congenital one; and, again, a congenital hernia may not have been observed by the patient before the age of twenty years or more. It should not be forgotten that a hernia existing at birth is not always what is known as a congenital one, but strictly that

consisting in a protrusion into an unobliterated vagino-peritoneal canal.

M. Trélat reports in this communication a case of congenital inguinal hernia strangulated at the inferior constriction of the vagino-peritoneal canal. The patient, a man aged 58, presented the following condition. There were decided symptoms of intestinal strangulation; in the inguinal region was a soft tympanic swelling, which could be reduced without difficulty, but returned immediately on the cessation of pressure; with the return of the intestine into the peritoneal cavity and the apparent reduction of the hernia, the lower portion of the scrotum was observed to be dragged upwards, and the corresponding testis to be carried into the abdomen. The characters then of this peculiar instance of hernia were: extreme facility of reduction, equal facility of reproduction, connection of the corresponding testis with the hernial swelling, and persistence of the symptoms of strangulation. On the fourth day, M. Trélat made an incision over the hernia and came on a loop of intestine which, though reddened and slightly swollen, presented no trace of mortification. The sac was then examined with much care, and at its lower portion, corresponding to the union of the sac and the tunica vaginalis, a ring was found with hard firm margins, and a little less than half-an-inch in diameter, which was occupied by a portion of intestine. After incision of the margin of the ring, the included portion of intestine which presented manifest signs of strangulation was then set free. The patient, however, remained somnolent and comatose, and died shortly after the operation. This case, it is held, teaches surgeons that, in dealing with strangulated inguinal hernia, care should be taken to make out whether it be or not congenital. If it be suspected to be a congenital hernia, and if a ready reduction be accompanied by displacement of the testicle towards the ring without cessation of the symptoms of strangulation, it is justifiable to assert that the constriction is situated near the tunica vaginalis. The diagnosis having been made, the seat of strangulation is known; and the necessity of early intervention becomes apparent in consequence of the special activity of the constricting agent.

M. Trélat refers to several cases of a somewhat similar condition that have been recorded by Dupuytren and Scarpa, and of late by Verneuil, Goyrand, Tripiet, and others. W. JOHNSON SMITH.

ARTICLE 991.

VOGT ON RESECTION OF THE ANKLE.

DR. P. VOGT, of Greifswald, in a contribution to the *Centralblatt für Chirurgie*, No. 19, 1883, on resection of the ankle for disease, points out that at the present day, in dealing with chronic fungous disease of joints, the surgeon prefers those methods of resection which are the best adapted for exposing to close examination the whole of the affected articular cavity. In this way only can complete success be attained in the attempt to remove the whole of the disease. The usual methods of resection of the ankle do not fulfil this indication. In order, as in von Langenbeck's operation by bilateral incisions, to see well into the ankle-joint, it is necessary to remove much of the tibia and fibula; and then indeed the tarsal portion of the joint and

the prolongations of the synovial membrane can hardly be seen. These latter parts are, as is well known, often extensively involved both in the primary synovial and in the primary osteal forms of fungous disease, and indeed may be solely affected; the tibia and fibula remaining in a healthy condition. With the object of gaining a free opening into the ankle-joint in operating for the removal of fungous disease, Dr. Vogt has of late performed methodical extirpation of the astragalus. The following are the steps of this operation. A long vertical incision is first made, extending from the lower part of the leg midway between the tibia and fibula, along the dorsum of the foot to a point in front of Chopart's articular line. The subcutaneous connective tissue and fascia having been carefully divided, the tendons of the long extensor muscle of the toes are detached from the parts beneath and drawn outwards. The extensor brevis is then cut, and drawn outwards with the outer margin of the wound. The external malleolar branch of the anterior tibial artery, together with its accompanying veins, is next divided between two ligatures. Then the capsule of the joint is divided in the vertical direction, the ligaments in front of the joint detached and moved to either side, the head and neck of the astragalus being then exposed, and subsequently—after the division of the astragalo-scapoid ligament—the whole of the anterior and outer part of this bone. A transverse incision is next made from the middle of the first to the tip of the external malleolus, the soft parts being divided down to the astragalus, the perical tendons behind the fibula remaining intact. The anterior and posterior astragalo-fibular, and the calcaneo-fibular ligaments are now divided close to the malleolus, and next the calcaneo-astragaloid interosseous ligament. By means of lion-forceps applied to the neck of the astragalus, or of an elevator introduced behind this process, the whole of this tarsal bone may be forced outwards. The broad insertion of the lateral ligament to the astragalus having been divided, the bone may be dragged outwards to such an extent that the calcaneo-astragaloid ligament—the sole remaining connection between the two lines—can be readily divided. After extirpation of the astragalus, the whole of the articular cavity of the ankle is exposed, the remaining portion of the synovial membrane can be extirpated, and diseased portions of tibia, fibula, os calcis, and scaphoid, removed by saw or chisel. This method of excising the ankle is considered to have considerable advantages: a free exposure of the interior of the joint may be attained without extensive wounding of the surrounding parts, and it is not necessary to sacrifice any portions of the bones of the leg unless these be diseased.

W. JOHNSON SMITH.

ARTICLE 992.

THE BACILLUS OF TYPHOID FEVER.

THE alleged discovery of the bacillus of typhoid fever made during the year 1881 by Klebs and Eberth, independently one of the other, although at first received with incredulity, has been since confirmed by several observers so far as is possible in the absence of the *crucial test*, viz., the production of the disease by inoculation with the pure and cultivated bacillus, for as yet no disease among the lower animals has been identified with human typhoid.

W. Mayer (*Untersuchungen über die Bacillen der Abdominaltyphus*, Berlin, 1882) demonstrated its presence in the intestinal mucous membrane, the spleen, and the lymphatic glands in eighteen out of twenty-four fatal cases of typhoid; Koch (*Mittheilungen des Reichsgesundheitsamtes*, Band i.) found it in half of the cases examined by him. Klebs met with bacilli or micrococci in twenty-four cases; and Wernich (*Studien und Erfahrungen über den Typhus abdominalis*, *Zeitschrift für Klin. Med.*, Band iv. und v.) concludes from his own researches, compared with those of others, 'that the essential phenomena of the course of the disease and the most serious symptoms depend primarily on the numbers of the bacilli or on repeated invasions of the digestive organs.' The subsidence of special symptoms on the eleventh to the fifteenth day corresponds with the dying off of the nests of bacilli, after which time, unless there have been a fresh invasion, it is often impossible to prove the presence of the bacilli. According to Eberth (*Die Typhusbacillen und die intestinale Injection in Volkmann's Sammlung Klin. Vorträge*, No. 226) the number of the bacilli is greatest about the twelfth day of the disease, after which it steadily declines to the end of the third week; only exceptionally are they found up to the fifth and sixth weeks. Eberth found them always most abundantly in the lymphatic glands of the cæcum. In this part they appeared as masses of micrococci; in others, where they were less densely packed, they could be recognised as short plump rods, with rounded ends, forming in the fluids of the lymphatic glands chains of two or three links. Unlike the bacilli of putrefaction, they displayed in prepared sections a very small power of absorbing aniline colours.

In twenty-four other cases of suppurative processes in the intestine, not of a typhoid character, among which were twelve of tubercle, only once could the existence of such bacilli be detected. Eberth believes that the mucous membrane of the intestine is the regular path of access of the typhoid bacillus into the human body, 'whence the fungus makes its way to the mesenteric glands, and passes from them into the circulation, to accumulate finally in the spleen.' EDWARD F. WILLOUGHBY, M.B.

ARTICLE 993.

DAVILLER ON AN EPIDEMIC OF TYPHOID FEVER.

IN a pamphlet, written in the end of January 1883, Dr. A. Daviller, consulting physician at *Eaux de Plombières*, gives an outline of an epidemic of typhoid fever which began in October last in the village of Ruau, and was still present at the time of writing. Ruau is a village about two-and-a-half miles north-west of Plombières, situated on a plateau 1,575 feet high, very healthy, not subject to epidemics, and with a population of 1,200, in comfortable circumstances, famed for their health and beauty. Into this village, in the course of June 1882, a young girl returned from Paris, where she had been as chambermaid, on account of an illness, from which she was recovering, but which had undoubtedly been typhoid fever. A family in the village visited this patient, and in July Dr. Daviller was called in to attend the father and mother. Their attack was not severe, and by the end of the third week they were convalescent. For some time no more cases appeared, until, on Sept. 5,

the doctor was called to see a boy, aged 13, with unmistakable symptoms of commencing typhoid fever, and, by the end of the second week, the case was well-marked. An unmarried woman, aged 40, who had visited the boy, was the next to be attacked; medical aid was not sought until three weeks after she was first taken ill, and she died the next day. Within the next week there were five fresh cases in the village, one occurring in the same house as the boy above mentioned, and the others in houses either opposite or close by, and all beginning nearly on the same day. All the attacks were more or less serious, and almost directly fresh cases broke out in the house of the mayor, whose son had visited one of these five cases. Four days after the son was taken ill, his mother sickened, and both died, the lad after thirty-five, and the mother after thirty-eight days' illness. Hardly were they buried, when a forester, who was a visitor during their illness, was also struck down, and died in twenty-eight days. This centre of disease caused the most serious cases, and the highest percentage of deaths. During the first half of December, there were 6 fresh cases in the village, and 4 in the surrounding hamlets, 2 of whom had died; a man, aged 53, from a relapse in the fourth week, and a girl of 15, also in the fourth week. The man communicated the fever to his wife, and the girl to her mother; both of whom, however, recovered. Two independent centres of infection were present outside the village. One was a house about 200 yards to the east, whither a girl returned from Paris in July, recovering from a severe attack of fever, and spread the disease to three sisters, a brother, and her mother. The other centre was a wretched hovel at the northern end of the village, cut off from all the other houses, and consisting of one room, where a father, mother, and eight children lived and slept. They were known to have had no communication with the other patients in the village, but the anti-hygienic condition of their dwelling was sufficient to account for the origin of the illness. The father was in a state of collapse at the time of writing, but none of the others had then contracted the disease. Only two patients were under treatment when the pamphlet was written, but Dr. Daviller did not feel sure that fresh cases might not break out again. He had attended thirty-two cases, of whom nine had died, between Oct. 15 and Jan. 28. He gives a list of those thirty-two, but, as it is not arranged according to the order of attack, it is interesting chiefly as showing how all ages, both sexes, and every condition of life were attacked indiscriminately.

In answering the various questions put by the authorities, Dr. Daviller reports that no cases of typhoid fever were present in the village before; that persons were known to have come into it, not only from a place where it prevailed, but even with the fever on them. The climatic conditions of autumn furthered the propagation and spread of the disease, and the population, being agricultural, were exhausted by the heavy work of the summer, and ready to succumb to the attacks of the poison. The type of the fever was adynamic, and the deaths occurred in those who were most weakly before the attack. Diarrhoea was a constant symptom. The severity of the epidemic is not to be attributed to special virulence of the poison, but to the free intercourse between the sick and the healthy, the season, the stagnation of the dejections round the houses, and the fatigued condition of the people.

The second part of the pamphlet deals with the

prophylaxis of typhoid fever. Dr. Daviller gives a graphic description of the way in which a community at some distance from a medical man acts when a case of fever occurs; how all the neighbours are called in consultation, or come from curiosity; how the midwife and the dealer in spells are called upon for aid; and how at last the medical man is summoned, only to find the patient in the height of the fever. The mention of the danger of infection is then sufficient to create as much solitude as can be desired, but it has come too late, and three fourths of the population will probably succumb. Dr. Daviller would suggest that a medical man paid by the municipal authorities should be appointed, so that the question of cost might not prevent the poor from sending at once for proper medical aid. When the epidemic is once established, the next important point is the carrying out of instructions and the proper nursing of the sick, which is too often entirely neglected, especially in country places. Dr. Daviller proposes to remedy this by sending to the places where epidemics are rife, or where special nurses are required, old resident attendants in the hospitals of the chief towns, both male and female, who would go from one patient to another, and see that the nursing was done properly.

Alice Ker, M.D.

ARTICLE 994.

CHARCOT ON VERBAL BLINDNESS.

CHARCOT (*Le Prog. Méd.*, No. 23, 1883) relates the following case. M. H. P., aged 35, proprietor of a drapery establishment, had previous good health with the exception of attacks of migraine, which came on every three months, and were not followed by vomiting. His heart was quite sound. The history of his present illness was that he went out to hunt foxes, and seeing an animal lying in the grass shot it sitting. It turned out to be not a fox, but a favourite dog belonging to an intimate friend. This vexed him very much. Later in the day he shot a rabbit, and immediately afterwards fell down paralysed on the right side, and in a few minutes he became unconscious. He was taken home, put to bed, and slept all night. Next day he was completely paralysed on his right side, spoke with hesitation, and used words wrongly. His wife related that he said '*J'ai une main dans le soleil.*' He could not name common objects, or his wife. It is impossible to know whether there was any deviation of the mouth and tongue, or whether there was disturbance of sensation. The paralysis gradually disappeared, and there no longer remained any difficulty in speaking, but he sometimes used one word in place of another. He could write very legibly. On Oct. 28, nineteen days after his accident, he wrote a letter about his business; then, thinking he had forgotten something, asked to have his letter again, when he found he *could not read his own writing, although able to write.* His letters written at this time differed from those written previously to his attack in a slight change in the writing, which was more upright and more childish in form, and in some faults of spelling, such as leaving out *s* and *x* at the end of words, and leaving out words altogether. A few months later, these faults had disappeared, and the writing became normal. Fifteen days after the accident, he suffered severe pain in the right ear, which

lasted two days, and was followed by constant whistling, which was worse when he was spoken to or was put about. About a fortnight later he tried to play at billiards—he was right-handed, and his right hand grasped the cue with perfect freedom and strength—but he found he could not play on the right side; the field of vision was limited, so that he only saw half of the table, half of the ball, and lost sight of the balls when they entered the right half of the visual field. Some months later when he consulted M. Charcot, there was no paralysis or motor aphasia. He wrote regularly and freely, but he could not read print or manuscript, and there was right hemiopia. There was no analgesia, nor alteration of special sense. The ophthalmoscopic appearances were normal. The hemiopia was limited by a vertical line. Visual acuity was not diminished in the region of actual vision. The perception of colour was unaffected.

There was still some loss of memory of words, such as names of streets he knew formerly, though he had recovered the names of common objects and people about him. He knew these streets, knew the house to which he wished to go; but, as he could not read the names, he was afraid to walk about alone. He could write his own name and address, and even a long letter without notable mistake or omission of words; he said he wrote as if he had his eyes shut, and did not read what he wrote. In fact, he wrote as well with his eyes shut. If he wrote his name and were asked to read it he said: 'I know very well it is my name that I have written, but I cannot read it.' With great effort he could read the name of the hospital when it was written; he traced each of the letters with his forefinger; he also read with the same difficulty 'Rue d'Aboukir,' the address of his friend; so that reading manuscript was not absolutely impossible, only very difficult, and effected by the ideas furnished by the movements of the hand in the act of tracing the same letters. When printed matter was given him, he said he found that more difficult to read, because he could not so easily reproduce the letters with his hand. It took him eight minutes to read a line of print, and three minutes to read the same line in manuscript. He read print better with a pen in his hand, with which to trace the letters. By degrees he got to read more rapidly. To illustrate how he got his notions from the movements of his hands, he was blindfolded and his hand made to trace the words, 'Tours, Paris,' when he at once said, 'Tours, Paris.' He knew all the alphabet but *q r s t* and *x y z*; but he wrote words containing these letters with perfect facility. He read worse when he was hungry, better after eating. He recognised figures, saw them perfectly, added and multiplied pretty well, but made mistakes if the multiplication were a little complicated. When he knew the meaning of a word he wrote it much more rapidly than when he did not know it; thus, he wrote 'République' in four or five seconds, and 'pterygoïdiens' in four minutes.

This peculiar form of aphasia has been called word-blindness by Kussmaul, who first described it in his monograph on aphasia in 1877, although Gendrin and Trousseau had recorded cases presenting this phenomenon.

The following are the conclusions which have been arrived at from the recent study of this condition. In general it comes on suddenly, with a slight degree of hemiplegia, which has soon disappeared. At first there is often some motor aphasia, which

passes off, leaving sometimes the word-blindness as the only symptom; but in rare cases this symptom may show itself alone from the first without hemiplegia. Hemiplegia has been noted in only one other case, that of Westphal. The practice of tracing the characters with the forefinger in order to assist in the operation of reading has been noticed in two cases by Westphal and Skwartzoff. By this means Charcot's patient learnt to read, but Skwartzoff's was paralysed on the right side, and his left hand served him very inefficiently for this purpose. He was tried with raised types, and made a little progress, yet at the end of several months could only read short words.

Post mortem examinations have been made in three cases. Unfortunately, in all there was more or less verbal deafness too. Still, in all the lesion predominated on the inferior parietal lobule, with or without participation of the angular gyrus and the first temporal convolution. The inferior parietal lobule appears, therefore, to be the seat of the lesion in word-blindness, a conclusion which must be accepted with due reservation. But it serves to explain the coincidence of hemiplegia; for it has been shown that this may be the result of a cortical lesion, and this has generally been in this situation. Dr. Charcot thinks the absence of hemiplegia in the reports of several cases may be in consequence of its being not very marked, and therefore not looked for. In the present case the hemiplegia has improved greatly, and proportionately to the amelioration in the word-blindness. At first it was typical hemiplegia, such as occurs from a lesion of the optic tract, but now the field of vision is much larger, and the line of demarcation has receded from the axis of vision.

ROBERT SAUNDY, M.D.

ARTICLE 995.

SEMMOLA ON THE PATHOGENESIS OF ALBUMINURIA.

SEMMOLA, in a recent paper read at the Académie de Médecine (*Le Progrès Méd.*, No. 24, 1883), states that he first, in 1850, pointed out the dependence of albuminuria on the quality of the ingesta, and that the increase after nitrogenous diet led him to adopt the view that the renal disease was secondary, and that the primary departure from health was the failure to utilise the albuminoids in the economy. Later, in 1861, he proved that a healthy kidney could excrete albumen, but that, if prolonged, this led to anatomical changes.

His principal arguments for the hamatogenous origin of albuminuria are—1, the diminution of the excretion of urea from the commencement of the albuminuria, without its accumulation anywhere; 2, identity of the albumen excreted in Bright's disease with the serum of the blood; this is not the case in the other forms of albuminuria; 3, the bilateral affection of the kidneys; 4, the confusion resulting from the anatomical point of view.

During the last few years, he has become convinced that differences in diffusion power lie at the bottom of this question. He has found—1, that the albuminoids in the blood of Bright's disease diffuse more than the albuminoids of the blood in other forms of albuminuria; 2, that, in early stages of Bright's disease, if the blood be examined before and after the cure, the diffusibility of the albuminoids of the blood augments, diminishes, or stops in relation with the

quantity of albumen in the urine; 3, that this physico-molecular constitution of the albuminoids of the blood is produced by more or less considerable default in the functions of the skin. He found that the blood of animals with varnished skins always contained diffusible albuminoids, when the varnishing involved at least one half of their cutaneous surface. In these circumstances, there was albuminuria, and the bile also contained albumen. He has collected a certain number of cases of chronic eczema and psoriasis, which alternated with albuminuria, and were finally cured by prolonged hydro-sudopathic treatment. He relates a curious case of seborrhoea, which produced effects like those of varnishing the skin. The patient felt the least breath of air, was always cold, looked very cachectic, and had albuminuria. He was cured perfectly by similar active treatment directed to his skin, and the albuminuria has never reappeared.

Dr. Semmola thinks the causes of the diminished activity of the skin are generally cold and damp. These act insidiously, producing by degrees an increase in the diffusibility of the albuminoids, a diminution in the urea excreted, and finally the forced elimination of albumen by all the depurative channels of the body. The saliva and sweat, as well as the bile, may be shown to contain albumen. This is the explanation of the albuminuria of Bright's disease, as distinguished from other forms having a purely local cause, congestion, inflammation, &c. By injecting egg-albumen under the skin he has been able to produce all the phenomena of nephritis; thus proving that the continuance of this abnormal secretion may bring about inflammatory changes in the kidneys.

ROBERT SAUNDY, M.D.

ARTICLE 996.

KRUKOVITCH AND SPERANSKY ON THE ACTION OF OZONE AND CHLORINE ON PUTREFACTION.

DR. T. A. KRUKOVITCH has written an inaugural dissertation on the action of ozone and chlorine on putrefaction. He made his experiments at Professor A. P. Dobrosavlav's laboratory. He exposed to the action of ozone and chlorine pieces of calico, of an equal size, impregnated with a foul solution of eggs' whites. The pieces exposed were of three kinds. Some of them were dipped into the putrescent fluid and then immediately suspended in the atmosphere examined; according to the author's nomenclature, they contained 'fresh bacteria.' Other pieces were, after soaking, dried at the ordinary temperature of a room, and only then exposed; this was what he called 'dry bacteria.' Others, again, were soaked, dried, and, immediately before the experimentation, moistened with distilled water: they were 'moistened bacteria' of the author. From his experiments he has drawn the following conclusions.

1. When evolved within a glass receptacle, ozone kills the 'dry' bacteria of putrefaction after its proportion has reached 8 milligrammes to one cubic metre of the air; and it destroys the life of the 'fresh' and 'moistened' bacteria when its proportion amounts to 3 or 5 milligrammes to one cubic metre.

2. When evolved within a zinc chamber or in an ordinary room, it cannot kill the bacteria in any state ('dry,' 'fresh,' or 'moistened') even after its proportion reaching 30 milligrammes to one cubic metre.

3. The action of chlorine gas within a glass receptacle is identical with that within a zinc chamber or in a room.

4. It kills the 'fresh' and 'moistened' bacteria when it is mixed with the air in the proportion of 0.5 or 1.0 gramme to one cubic metre.

5. It does not destroy the 'dry' bacteria, even when the proportion reaches 2 grammes to one cubic metre.

The practical corollaries issuing from the data above are these.

1. Ozone cannot be used for disinfection on any extensive scale (*e.g.* for disinfection of hospitals, houses, barracks, &c.), though it may be employed for disinfecting wearing apparel, bed-linen, &c., provided that the operation is carried out under a glass bell or in a glass chamber.

2. Chlorine gas is very suitable as a disinfectant for apartments of every description. It is necessary, however, before using chlorine for this purpose, to moisten flooring, ceiling, and walls, by means of a common pulverisator. Dr. Krukovich prepared ozone after the method recommended by Dr. Suprunenko in his inaugural dissertation ('Experimental Researches on Ozone in its Application to Sanitary Purposes,' St. Petersburg, 1880). That is, he took Dr. Suprunenko's compound (consisting of four parts of caustic soda, three of manganese peroxide, and one of nitrate of potassium, all melted together) and poured over it two or three times its weight of concentrated sulphuric acid. The quantity of ozone evolved by the mixture during twenty-four hours is equal to about 1 per cent. of the weight taken. As to the preparation of chlorine, the usual mixture of chloride of sodium, manganese peroxide, and sulphuric acid was used.

Dr. Speransky's article on the Influence of Chlorine on the Bacteria of Putrefaction is also a St. Petersburg inaugural dissertation. His investigations were conducted under the guidance of Professor A. P. Dobroslavin. Chlorine was obtained from chlorinated lime, either by addition of slightly acidulated water (when the action of the gas slowly evolved was to be tested), or by making a homogeneous paste and mixing it with hydrochloric acid (when the author desired to study the action of the gas rapidly given off). As in Krukovich's experiments, three sorts of calico or linen pieces impregnated with putrescent particles were used ('dry,' 'fresh,' and 'moistened' bacteria). They were exposed to the action of chlorine gas, either in zinc chambers (125 litres in volume) or in ordinary rooms. Dr. Speransky sums up the results of his observations as follows.

1. Chlorine is very easily obtained from chlorinated lime: no special appliances are required.

2. When slowly evolved, chlorine does not kill either 'fresh' bacteria, nor 'moistened,' nor 'dry,' even after its proportion reaching 3 grammes to one cubic metre. Therefore, to place chlorinated lime in dishes about the wards, &c., means only to waste the material which could be effective if used after a better plan.

3. Chlorine proves fatal to the 'moistened' and 'fresh' bacteria, both within zinc chambers and rooms, when the gas is rapidly evolved, and where its proportion reaches 0.5 or 1.0 gramme to one cubic metre.

4. Chlorine may sometimes destroy the 'dry' bacteria, also, when it is mixed with the air in the proportion of not less than 1 gramme to 1 cubic metre;

but the conditions under which it does so remain as yet undetermined.

V. IDELSON, M.D.

ARTICLE 997.

ARCHANGELSKY ON THE ANTHRAX CONTAGION.

DR. A. ARCHANGELSKY, who has worked at Professor E. Semmer's laboratory in Dorpat, has undertaken experiments mainly to throw some light on the development and multiplication of the anthrax micro-organisms from the very moment of their entrance into the system (*Pratch*, 1883, No. 16). Though the pathogenic nature of the bacillus of anthrax was well established by a long list of workers (Pollender, Brauell, Siedamgrotzky, Joubert, Davaine, Bollinger, E. Semmer, Koch, Feser, Pasteur, Buchner, Greenfield, &c.), still, of the positive data referring to the author's question, there was known only the fact of bacilli being detected shortly (two to ten hours) before the patient's death (Brannell, Spilman, E. Semmer, Koch and Feser, &c.) On the other hand, literature contains many reports on undoubted cases of anthrax, in which no bacilli were found at any time. Dr. Archangelsky thinks he has succeeded in finding an explanation for such a previously unaccountable condition of things. He inoculated mice and rabbits, and on the very first symptoms of infection (rise of temperature) examined microscopically arterial blood taken from the animal's ear. In all cases, without a single exception, he found minute, round, shining, highly refracting, motionless bodies, the size of which was nearly equal to that of common micrococci. Cultivation of the blood in neutralised chicken-broth and on a potato invariably gave rise to the development of bacilli, inoculation of which as constantly produced typical anthrax in animals. All the animals from which the specimens of blood had been taken died, also, from splenic fever, with rods in the blood, spleen, and other organs. In all but one case, the spherical bodies were found in the blood about twenty or thirty hours before the animal's death. In one case they were present as early as two days before the lethal issue. From this series of experiments, the author concludes that the spherical bodies are spores which present the original stage of virus, and from which the bacilli are developed only later and nearer to the end of the disease.

This conclusion evidently implies the supposition that the spores originally must multiply quite independently. To prove this, the author has carried out another series of cultivation-experiments. Having taken a specimen of the blood containing spores, he simultaneously infected (1) sterilised chicken-broth hermetically isolated from the air, and (2) that non-isolated from the access of oxygen. Whilst rods and chains freely grew in the vessels unprotected from contact with the air, the other group of cultures invariably developed only spores. Thus experimenting, the author was able to cultivate three generations of spores. The spores of the third generation, being brought into contact with oxygen, gave rise to the rod-shaped bacteria. Inoculation of products obtained from planting the bacteria on a potato, caused in animals death from anthrax. From this second group of his observations, Dr. Archangelsky deduces (1) that the spores actually are able to multiply independently; (2) that they do multiply when they are isolated from the air; in other words,

that they are anaërobiotic, whilst rods and chains of the bacillus of anthrax are aerobiotic. According to the author's general conclusion, aerobiotic bacilli present only a prëmortal, or even in some cases postmortal phenomenon; they are developed somewhere about the end of the disease, from the anaërobiotic spores, which have previously multiplied by process of division and caused all the initial (and essential) mechanical and nutritive disturbances in the animal's system. Death may follow already during the first period of the disease, that is, when the spores have not yet succeeded in undergoing transformation into the adult bacterial form. The more acutely the disease runs its course—that is, the more rapidly the moment of infection is followed by death—the more probably only spores will be found on *post mortem* microscopical examination. And here Dr. Archangelsky seeks and finds an explanation of the cases of anthrax which gave negative results as to the bacillus; only spores might be present, and, being minute, they might easily escape detection.

V. IDELSON, M.D.

ARTICLE 998.

PEDRONO ON COLOUR-HEARING.

M. PEDRONO, assistant at the ophthalmological clinic at Nantes records (*Journal de Médecine de l'Ouest*, Tome xvi., 1882, p. 294, *et seq.*) a case of this interesting condition which he accidentally discovered in this wise. His attention having been drawn to the subject by the perusal of the article on colour-hearing in the LONDON MEDICAL RECORD for Dec. 1881, he was speaking of the subject to some friends, when one of them informed him privately that Mr. L., a mutual friend, was possessed of the power of colour-hearing. The observations, based on an examination of this gentleman's case, are given in detail by the author; and the subject is one of so much novelty and interest that a brief account of the main facts observed may be given here. The author answers two objections which he has been met with—viz., 1, that colour-hearing is a pathological state; and, 2, doubts as to the patient's veracity, by showing, in the first place, that the patient's eyes were normal, there being no dyschromatopsia, and the ophthalmoscope showing no abnormality, and, in the second place, by giving in the patient's own words an account of the mode in which he (the patient) first became acquainted with this anomaly.

Since infancy, according to Mr. L., whenever a distinct sound struck his ear, especially the human voice, he experienced at the same moment, without any reflection, a certain colour. The association must have been spontaneous, as he (Mr. L.) had never read nor heard of anything of the kind; in fact, it appeared to him so natural that he thought all the world ought to have a similar sensation. He would as soon have thought of asking his neighbour whether he saw gold yellow or scarlet red, as of questioning him about colour-hearing, so natural did it appear to him. Accidentally he happened to mention the subject to some friends, but thereby so excited their mirth that ever since he had been silent on the subject, until questioned by the author. In Mr. L. every musical note produces a coloured sensation; the highest ones being accompanied by brilliant tints, the lower by dark colours. The three notes of a perfect chord produce a single colour.

The key appears to have no influence on the production of the chromatic sensation. The same piece of music performed by different instruments presents different colours: so that *timbre* appears in this case to have a direct influence on the production of colour. Increased intensity of a sound has simply the effect of accentuating the colour. When the sound is weak, the colour appears subjected to oscillations; whereas, when the sound becomes clear and sharp, the colour assumes an uniform and clearly defined character. All noise produces a colour-sensation, but the colours thus produced are dull, usually grey or brown. In speaking, the consonants produce a colour-sensation which is hardly perceptible; the vowels only are coloured. *I* and *E* give the most brilliant colours, *U* the darkest, and *A* and *O* intermediate tints. Any sentence might thus be represented by a coloured band corresponding to the general colour of the voice, and presenting according to the different vowels variations in intensity of hue. This band would be intersected at numerous points by dark lines corresponding to the consonants. When a chorus is heard, a crowd of colours shines like little points above the singers. Careful observations have shown Mr. L. voices which are yellow, red, green, or blue; the latter being by far the most common, and the green voices the rarest. The most agreeable voices usually produce a yellow impression. As there are no two voices identical, so they do not any of them give rise to identical colours. It therefore appears that every voice and every musical instrument are characterised by a certain colour, of which the quality only is modified by the height and intensity of the sound emitted. Contrary to the argument, that it is by means of the optical apparatus that the colour-image is projected outwards (*vide* LONDON MEDICAL RECORD, *ibid.*), the author argues, with some show of reason, that, if the colour-image were projected outwards by the eye, it would be in the axis of the rods or cones, as in the normal state; but the observations in this case show that the colour-image is perceived above the source of the sound alike, whether the observer directs his eyes towards the sounding body or away in another direction. Mr. L. considers that in his case the colours are the product of an hallucination confined to the auditory field. Moreover, the colour-impression is quite independent of the eyes, for it is perceived equally well when the eyes are closed. He says that sometimes, on hearing a chorus of voices with the head averted, the impression of numerous colour-images above the singers is so vivid that he is led to turn his eyes in that direction, and is disappointed at not seeing the colours.

Passing in review the different explanations of this phenomenon, which have been offered, the author inclines to the theory of irradiation. He argues in the first place that the production of the sensation of colour by sonorous vibrations, without any excitation whatever of the visual organ, proves beyond a doubt the existence of a cerebral centre for colour-vision. When an impression produced by the vibration of air reaches the auditory centre through the auditory nerve, it may produce an excitation sufficiently intense to irradiate to the neighbouring colour-centre. The author therefore assumes that there are two cerebral sensorial centres situated somewhere in the grey matter, and if, in order to explain the phenomenon of colour-hearing, we admit the theory of irradiation or of associated sensations, it follows that the cerebral centres for colour and

hearing are necessarily close together. The author suggests the following hypothesis in regard to the perception of colours. The perception of colours being a central phenomenon, there are in the central elements three, or rather four varieties, of cells capable of perceiving the fundamental colours. The excitation of one or more cerebral cells would therefore give rise to simple or compound colour-sensations.

E. CRESSWELL BAEER, M.B.

ARTICLE 999.

QUÉNU ON THE PATHOGENY OF VARICOSE ULCERS.

DR. QUÉNU has, in an interesting memoir published in the *Revue de Chirurgie*, determined the influence hitherto little known of disturbance of nerves in the pathogeny of varicose ulcers. M. Ferrier, and M. Séjournet, one of his pupils, have alike previously studied this aspect of the question. The lesions of varicose ulcers are in many respects analogous to trophic disturbance due to nerve-change. The way in which they begin is a proof. Patients and surgeons often assign a direct cause, such as a slight injury, the rupture of a varicose vein, a slight excoriation which, on a varicose and œdematous leg, is sufficient to give rise to an ulcer. Sometimes, without any appreciable cause the epidermis is raised, and presents the appearance of a small blister filled with a thick fluid; this bursts, and a small red scab is seen which is thrown off, leaving an ulcerated surface. Very often the loss of substance in the skin is presented by modifications of condition, slowly effected; the integuments change colour, and present a rough mucous surface just where later on ulceration will appear; the epidermis becomes pigmented; red spots are observed, which itch intensely; frequently an eruption of chronic eczema appears.

M. Verneuil has especially dwelt on the itching which precedes ulceration, also on the different eruptions, and has drawn attention to the excessive secretion of sweat. M. Ferrier has observed that thermic sensibility is disturbed before the ulcer appears. Later on the epidermis round the ulcer thickens, the nails grow inwards and out of shape, the whole limb is discoloured and its hairs grow unusually long (Follin).

There is a striking analogy between this process and the trophic disturbance due to nerve-lesions. Abnormal pigmentation, modification of hair and nails, desquamation of epidermis, pemphigoid eruptions, erythema, slow scabbing—all these lesions are combined and bear the impress of a nervous etiology—modified sensibility. Moreover, the persistence of œdema is owing to some neurotic influence. M. Rouvier (in 1867) and M. Vulpian demonstrated that generally simple ligature of a vein does not produce œdema; when section of the nerve is also made infiltration immediately follows.

In six cases taken at random and very carefully studied, Dr. Quénu observed besides the well-known modifications in the veins, chronic interstitial neuritis, generally perifascicular of the saphenous, tibial, and sciatic nerves. The lesion apparently begins by a slight increase in the size of the nerve, accompanied by a slight dilatation of its venules. Connective tissue then forms around these dilated veins, and spreads between the primary bundles of connective tissue, slightly separating them. The

entire nerve may treble its original size; the internal saphenous nerve may become almost as large as the sciatic. The interstitial neuritis appears to be ordinarily limited to the tissue around the fasciculi of the nerve.

At a more advanced stage the primary fasciculus itself becomes sclerotic. The lamellar sheath is transformed into fibrous tissue; vascular lacunæ appear in its substance. Soon fibrous trabeculae, resembling wheat-sheaves in form, enter the nerve-bundle and disintegrate it. The trabeculae always penetrate along the track of the vessels. Later on the nerve-tubes rarely and appear to atrophy; nevertheless M. Quénu has never succeeded in detecting parenchymatous neuritis. M. Quénu observed that endoarteritis was frequent, also that the skin presented a varicose condition, and all its elements underwent some change; the muscles were attacked by chronic interstitial myositis, accompanied by fatty infiltration and fatty granular degeneration of the primitive fascicle.

The pathological anatomy of these lesions leads to the conclusion that they are independent phenomena, and exist prior to the ulcers. Probably in a certain number of cases the inflammation of the nerve results from the dangerous contiguity of unhealthy veins, and these modifications develop slowly. Some patients may possibly escape them, other conditions being necessary to produce them.

M. Quénu has carefully guarded against exaggerating the influence of the nervous system, and has only sought to prove that modification of the nerves is an important factor in the pathogeny of these ulcers, which derive their local aspect, and it may even be said their local colour, from the venous circulation.

ARTICLE 1000.

VULPIAN ON SALICYLIC ACID.

M. VULPIAN, at a recent meeting of the Academy of Medicine (*Revue de Thérap. Médico-Chirurg.*), communicated the results of a prolonged clinical study of the effects of salicylic acid. He has been led to conclude that it lowers the temperature more rapidly and with less danger than any known drug. Phenic acid and phenols have the same effect, but their use is attended by drawbacks salicylic acid does not present.

M. Vulpian has observed that 4, 5, or 6 grammes of salicylic acid administered daily lower the temperature in twenty-four, forty-eight, or seventy-two hours by 2° or 3° Cent. (36 or 54 Fahr.), but 2 grammes are insufficient. He also states that he has frequently reduced the evening below the morning temperature by administering salicylic acid, whereas sulphate of quinine in doses of 1½, 2, and even 2½ grammes (22, 30, and 38 grains) has failed. M. Vulpian concludes from his observations that salicylic acid is a much more potent antithermic agent in enteric fever than sulphate of quinine.

M. G. Sée has said that salicylic acid has not the same effect on the pulse as sulphate of quinine, and that a high temperature in typhoid fever is not so significant as a frequent pulse. Salicylic acid may be a more powerful antithermic agent, but has less action on the heart. M. Vulpian acknowledges that sulphate of quinine has a more powerful action on the heart than salicylic acid, but doubts whether the

same may be said of its action on diuresis. In common with many other medical men, he considers that increased temperature is the most reliable indication of fever, and believes that salicylic acid is an antithermic acid because it is an antipyretic agent; its 'action' checks the pathological process which produces fever. Salicylic acid is a more potent antipyretic agent than sodium salicylate.

Salicylic acid not only lowers the temperature in enteric fever, but improves the general condition. Sleepless patients, who are either excitable or in a state of stupor, become much calmer after taking a dose of salicylic acid. M. Vulpian has had patients who asked for food the next morning. The use of salicylic acid has been objected to by some medical men because it is a poison. M. Vulpian reminds them that all drugs having a definite action are to some extent poisonous. The condition of the liver and kidneys is also considered by some medical men as an indication that salicylic should not be given. M. Vulpian does not believe that it acts vigorously on the kidneys. He has never observed it arrest albuminuria in enteric fever; when this increases it disappears rapidly, although treatment by salicylic acid is continued. In severe bronchitis with delirium, according to M. Vulpian, salicylic acid may increase dyspnoea; but the dyspnoea disappears if the use of the salicylic acid be discontinued for a few days. He does not admit that its use is dangerous in cases of hæmorrhage.

M. Vulpian terminates his communication by giving statistics from his own practice, bearing strong evidence in favour of the use of salicylic acid; but he observes that too much importance should not be given to statistics. Although this discussion shows clearly that a remedy for enteric fever is not yet arrived at, there is not any reason to be discouraged. It has been said, and is repeated almost as an axiom, that there are not diseases, only diseased persons. This view is erroneous. All specific diseases—ague, &c.—present almost the same characters in all cases. Enteric fever, like intermittent fever, is a specific affection; and ague, whatever form it presents, is always treated by a specific unvarying method.

Enteric fever, according to M. Vulpian, is due to the toxic effect of a specific pyretogenic agent; and he confidently hopes that a specific treatment will be arrived at that will either kill the typhogenic agent (*agent typhogène*), or render the human organism impervious to its influence by evolving a process resembling that of vaccination.

ARTICLE 1001.

SAYRE ON FRACTURE OF THE CLAVICLE IN ITS OUTER THIRD.

A LECTURE on this subject was delivered by Professor Lewis A. Sayre, at Bellevue Medical College, and reported in the *Med. and Surg. Rep.*, of Philadelphia. He said:—

Gentlemen,—I here present to you a case which is of considerable interest, although it hardly comes under the Chair of Orthopædic Surgery, unless considered as a prevention of deformity.

This young man informs me that a few days ago he fell from a waggon, striking upon his shoulder, which has resulted in a fracture at the outer third of the clavicle. You note how my finger drops into the depression at this point, and how extensive the

discoloration of the tissues. Now in these cases the shoulder drops downward, forward and inward, the pectoralis major drawing it downward and forward, while the sterno-mastoid, drawing the sternal end of the clavicle upwards, results in the deformity you see here. I suppose there have been more instruments devised for treating fracture of this little bone than all the instruments for other fractures put together. I cannot take time to enumerate them, but two or three years ago Dr. Frank Hamilton occupied three consecutive lectures in applying these various methods (before the class) upon patients admitted into the hospital for fracture of the clavicle, and then concluded his exhibition by informing the class that all these methods were of no avail, and he would not advise their use, but stated that the patient should be placed in bed, with a pillow between the shoulders so as to bring them well back, the patient to remain perfectly quiet; this treatment he considered all that was necessary, and termed it postural treatment.

If a man can lie absolutely still for six weeks union might be effected in this manner; but the deltoid muscles and the muscles of the shoulders would probably move and prevent union of the bone.

My plan of treatment is simply this. I take two strips of adhesive plaster $2\frac{1}{2}$ inches wide, then, passing one strip of adhesive plaster around the arm at the junction of the lower and middle third, I make a loop, leaving an open space at the posterior part of the arm, as you see: this prevents strangulation.

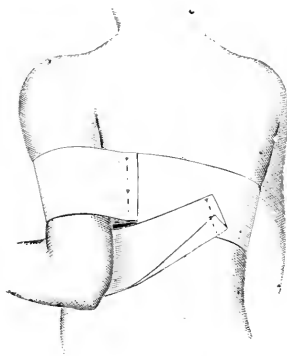


FIG. 1.

Then drawing the arm back, I bring the pectoralis major upon the stretch, but the acromial end of the clavicle still rides under the sternal fragment; I now secure the arm back by passing the strip of adhesive plaster around the body, bringing it under the arm of the opposite side, across the thorax, and fasten it to itself on the back. (See Fig. 1.)

Care must be taken not to draw the arm too far back, but just sufficient to put the pectoralis major upon the stretch. I now take this other strip of adhesive plaster, and make a slight longitudinal cut in the centre to admit the point of the elbow; you now flex the arm at an acute angle over the chest, drawing it upward, forward, and inward, and in this manner you reduce your fracture, as you see that I have done in this case. (See Fig. 2.) Bringing both fragments of the bone into a perfect line, you now

secure the arm in this position by passing the strip of adhesive plaster over the elbow across the back

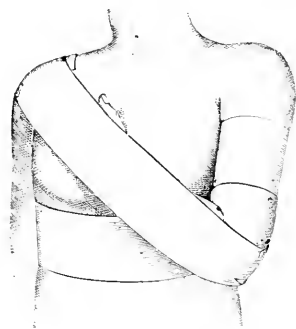


FIG. 2.

diagonally to the opposite shoulder, then bring the anterior end of the strip up along the hand and arm over the chest, and fasten it to itself at the shoulder. (See Fig. 3.)

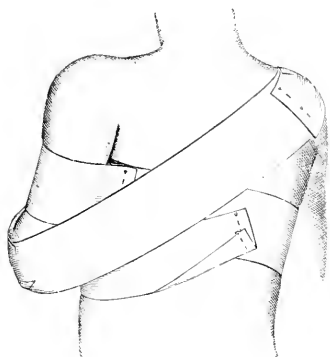


FIG. 3.

I desire you to note this carefully, as it is the most simple method of treating the fracture of the clavicle that I have ever seen, and is the only plan of treatment which will yield a perfect result without deformity.

One advantage of this plan of treatment is this; it is absolutely impossible to dress a fracture of the clavicle in a child with any complex bandage satisfactorily, whereas in this your bandage is perfectly secure, and there is no possibility of its becoming displaced. Never use an axillary pad, as the pressure by this means often stops the circulation of the arm, and the pain following this occurrence is something terrible.

It is impossible now to displace those fragments as I have dressed this man's injury, and he can go to work with his other hand. If you were to dress that fracture in such a manner as to render that man unable to use his other hand to earn his living, you

ought to be compelled to pay for the loss of time which would follow such treatment. I have treated numbers of fractures in this manner with the most perfect results, and I defy anyone to detect the point of fracture when cured; I say that a fractured clavicle can be cured without deformity. Excuse me for my warmth upon this subject, but I have been censured so recently by our own surgeons upon this point that I feel compelled to reiterate my statement somewhat forcibly, and will demonstrate the fact before you in the case now before us, as I intend that you shall see this man when he is cured.

[The following week the man appeared before the class; the bandage was found to be in the same condition as when applied, the fracture was immovable, and the line of the clavicle perfect. Two weeks later the bandage was removed, perfect union having been secured; nor was there any deformity perceptible, the fragments having united in a perfect line.]

SURGERY.

RECENT PAPERS.

1002. HOMANS.—Two Cases of Removal of Immense Fatty Tumours by Abdominal Section. (*Lancet*, March, p. 449.)
1003. CHISHOLM.—Six Cases of Dislocation of the Arteries reduced by Kocher's Method. (*Lancet*, April, p. 635.)
1004. JONES.—Rupture of the Sac of a Large Femoral Hernia. (*Lancet*, April, p. 754.)
1005. BRITO.—The Treatment of Dog-bite in the East. (*Lancet*, April, p. 724.)
1006. FOX.—A Case Twenty Years Subsequent to Disarticulation of the Hip. (*Lancet*, April, p. 724.)
1007. WARREN.—Two Cases of Traumatic Aneurism Treated by the Method of Antyllus. (*Lancet*, April, p. 721.)
1008. STEVENSON.—Case of Traumatic Gangrene of the Penis and Scrotum. (*Lancet*, April, p. 682.)
1009. ROESON.—A New Operation for Spina Bifida. (*Brit. Med. Jour.*, March, p. 558.)
1010. ATKIN.—Spinal Bones, Paraplegia, Trephining, Relief of Symptoms of Pressure. (*Brit. Med. Jour.*, April, p. 812.)
1011. THOROWGOOD.—Colloid Cancer. (*Brit. Med. Jour.*, Feb., p. 255.)
1012. WILLETT.—Rapid Recurrence of Epithelioma: Pain controlled by Gelsemium. (*Ibid.*, April, p. 767.)
1013. GORDON.—Aneurism of the Popliteal Arteries. (*Ibid.*, April, p. 661.)
1014. O'CONNOR.—A New Treatment for Paraphimosis. (*Brit. Med. Jour.*, Jan., p. 10.)
1015. GARR.—Epistaxis with Hemorrhage through the Lachrymal Duct. (*Brit. Med. Jour.*, April, p. 715.)
1016. LE FORT.—Laparotomy.
1017. LAUENSTEIN.—Phlegmon of the Penis. (*Centralbl. f. Chir.*, No. 17, 1883.)
1018. FOWLER.—Naphthalin in the Treatment of Wounds. (*Annals of Anat. and Surgery*, May 1883.)
1019. RYDYGIER.—Gastro-Enterostomy. (*Centralbl. f. Chir.*, No. 16, 1883.)
1020. SCHONBORN.—Removal of a Mass of Hair from the Stomach. (*Wien. Med. Blätter*.)
1021. LANGENBUCH.—Removal of the Gall-Bladder. (*Wien. Med. Blätter*, May 31.)
1022. KUSTER.—The Removal of Cancer of the Breast. (*Deutsche Med. Wochens.*, April 25.)
1023. GUSSENBAUER.—Avulsion of the Scalp by Machinery. (*Wiener Med. Blätter*, April 5.)
1024. WULFE.—A Case of Progressive Osteomalacia. (*St. Petersburg. Med. Wochens.*, 1882.)

1025. GALILEA, E.—Hepatitis of the Concave Surface of the Liver, terminating in Suppuration: the Abscess opening externally: Cure. (*El Siglo Médico*, and *Rev. de Med. y Cirurg. Pract.*, Feb. 7, 1883.)

1026. SAEZ, C.—Elephantiasis of the Scrotum. (*La Prensa Med.* and *Revista de Med. y Cirurg.*, May 22.)

ART. 1002. *Homans on Two Cases of Removal of very large Fatty Tumours by Abdominal Section.*—Dr. Homans of Boston (*Lancet*, March 1883, p. 449) reports two cases of removal of fatty tumours from within the abdominal cavity. One case was in a man aged 39, who had been growing larger in the abdomen for about three years, and on examination measured 43 inches round the umbilicus. After much consideration, it was decided to attempt to remove the tumour, and several medical men were present at the operation. Two enormous tumours, weighing together over 50 lbs., were removed, and still more growths were seen, but no attempt was made to remove them. The patient died a few hours after the operation. The second case was that of a lady aged 60, who requested an operation on account of a large tumour of the abdomen. After some delay the operation was decided upon; a tumour weighing 35 lbs. was removed, having the character of a pure lipoma. The patient did not survive the operation many minutes.

1003. *Chisholm on Six Cases of Dislocation of the Humerus Reduced by Kocher's Method.*—Mr. W. Chisholm, in the *Lancet*, April 1883, p. 635, gives the notes of six cases of dislocation of the humerus (five subcoracoid, one subglenoid), all reduced by means of Kocher's method, which was described at the meeting of the International Congress in London. Referring only to the subcoracoid form of dislocation, M. Kocher directs that for its reduction the surgeon should sit on the left of the patient, then the elbow-joint is to be flexed at a right angle, and the joint firmly pressed against the side of the chest; next, while the elbow is held in contact with the body, the arm is to be slowly, gently, and steadily rotated out until firm resistance is encountered; then, while this rotation is maintained, the arm is to be raised forwards, and a little inwards; lastly, it is to be rotated inwards, and the hand brought towards the opposite shoulder.

1004. *Jones on Rupture of the Sac of a Large Femoral Hernia.*—Mr. Jones, in the *Lancet*, April 1883, p. 754, relates a case of a woman, aged 35, who had a femoral hernia of many years' standing, and which had lately become so large as to be pendulous. One day she ran quickly to one of her children, and took him up in her arms, then sat down hurriedly on a low stool. In the act of doing this the tumour slipped between her thighs, and she sat heavily upon it, causing the parietes of the tumour to give way, and a great mass of the intestines protruded. After the collapse had passed off the patient was put to bed, the intestines were returned into the abdomen, the wound stitched up, an opiate given, and the patient's friends were told that she would soon die. Strange to say, however, the woman recovered, and in three weeks was doing her ordinary work again. At page 585 a somewhat similar case is reported by Mr. Bernard Pitt.

1005. *Brito on the Treatment of Dog-bites in the East.*—Mr. Brito, in the *Lancet*, April 1883, p. 724, mentions that in Ceylon there is an old custom of chastising vigorously a dog-bite with a sandal. This causes profuse bleeding of the wound, and

helps to remove some of the virus. Meanwhile some leaves of the 'drumstick tree' are beaten up with a little caustic-lime and applied to the wound, which is then bandaged.

1006. *Fox on a Case Twenty Years Subsequent to Disarticulation of Hip.*—Dr. Fox, in the *Lancet*, April 1883, p. 724, notes a case of a lad who was brought to Greenock Hospital twenty-two years ago, having sustained a severe injury to his thigh from a circular saw, so that it was necessary to perform disarticulation at the hip-joint. The subsequent history of the case is peculiar. After the operation the patient never had a bad symptom, and within three months was walking in the street; and now, after a period of more than twenty years, his spine is as straight and level as if no operation of the kind had been performed.

1007. *Warren on Two Cases of Traumatic Aneurism Treated by the Method of Antyllus.*—Dr. Warren, in the *Lancet*, April 1883, p. 721, publishes two cases, one of a man, aged 25, who had an aneurism of the femoral artery in the middle third of the thigh; the other, a man, aged 33, who suffered from a popliteal aneurism. In both cases Mr. Warren cut down to the aneurism and ligatured the artery and vein above and below the enlargement; the first case recovered, but the second died from hæmorrhage from the proximal end of the vessel about fourteen days after the operation, probably due to septic inflammation of the artery. The successful case was treated by antiseptics, and consequently did not run such risk of septic inflammation.

1008. *Stevenson on a Case of Traumatic Gangrene of the Penis and Scrotum.*—Surgeon-Major Stevenson, in the *Lancet*, 1883, p. 682, reports the case of a man, aged 43, who was admitted with great swelling and ecchymosis of the penis and scrotum, but not extending into the perinæum, caused, he said, from a strain whilst attempting to support a tent-pole (weighing 30 lbs.) which was falling on him. The patient said he received no blow at all, but others asserted that the tent-pole fell between the man's legs. The patient died about fifty hours after the accident, and on *post mortem* examination nothing was found abnormal in the state of the bladder or urethra, except towards the outer end, where there was slight ecchymosis. The cellular tissue, however, of the penis and scrotum was infiltrated with serum; the body of the penis was distended with dark blood, and the whole mischief seemed probably due to rupture of some of the vessels in the corpora cavernosa, resulting in such distension as to produce gangrene of the penis.

1009. *Robson on a New Operation for Spina Bifida.*—Mr. A. M. Robson, in the *Brit. Med. Jour.*, March 1883, p. 558, describes a case of a child in whom he performed an operation for spina bifida, when it was only six days old. The infant was fully anaesthetised, and a vertical incision made on each side of the tumour; the integuments were carefully dissected from the meninges until the laminæ of the vertebræ were reached. The redundant membranes were cut away after letting out the fluid, and then several sutures were applied to the serous surfaces of the arachnoid, so as to completely shut off the spinal canal. In the meantime, Mr. Mayo (under the antiseptic spray) had dissected the periosteum from the femur and frontal bone of a rabbit. This periosteum was now placed, with its osteogenic layer undermost, over the closed meninges, and carefully sutured to the periosteum of the laminæ on each

side, and to the bony margins above and below. After this the skin was sutured, a layer of protective applied, and a pad of salicylic wool placed over the wound. The whole operation was performed under the eucalyptus air, and the patient made a good recovery, but there was no evidence of new bone having formed over the gap.

1010. *Atkin on Spinal Caries: Paraplegia: Trephining: Relief of Symptoms of Pressure.*—Mr. C. Atkin, in the *Brit. Med. Jour.*, April 1883, p. 812, reports a case of a lad, aged 12, who was admitted into the Sheffield General Infirmary suffering from paraplegia. About three months after admission, the patient's state had become very deplorable; the legs were helpless and extremely wasted, they were drawn up in a state of tonic contraction; sensibility was diminished, the feet being blue and cold. About this time a prominence of the spine was detected in the lower dorsal region, and Mr. Jackson decided to explore the spinal canal in order to try if he could relieve pressure on the cord. The operation was performed antiseptically; the laminae and spinous process of the ninth dorsal vertebrae were removed. A week after the operation, the patient was able for the first time, since admission, to micturate properly; he recovered control over his sphincters, the painful tonic spasms in the legs disappeared, and sensibility was much improved.

1011. *Thoroughgood on Colloid Cancer.*—In the *Brit. Med. Jour.*, Feb. 1883, p. 255, a short account appears of a case exhibited by Dr. Thoroughgood at the West London Medico-Chirurgical Society, which was diagnosed by him as colloid cancer. A short discussion ensued, in which several members gave instances of their experience of abdominal cancers. The absence of pain and of ascites in the case exhibited, led some to say there was more evidence of cirrhosis than of cancer; others remarked that they did not regard the comparative absence of pain as weighing much against the symptoms of cancer in the case.

1012. *Willett on Rapid Recurrence of Epithelioma: Pain Controlled by Gelsemium.*—In the *Brit. Med. Jour.*, April 1883, p. 767, reference is made to a case published in the journal for February 3, 1883, p. 206, of a man suffering from epithelioma of the cheek. On Feb. 13, 1883, Mr. Willett removed the growth, and for a time the patient improved, but after an interval of four or five weeks it recurred with great rapidity, so that no further operation could be performed. The patient suffered severe pain, owing to the inferior dental nerve being involved. Tincture of gelsemium, given in doses of twenty minims at short intervals, controlled the pain in a marked manner. Three doses were generally sufficient.

1013. *Gordon on Aneurism of both Popliteal Arteries.*—Dr. S. Gordon, in the *Brit. Med. Jour.*, April 1883, p. 661, gives a case of aneurism of both popliteal arteries, which was cured by ligature of the femoral arteries. The case was one which was treated at the Richmond Hospital in Dublin in 1817. The patient, aged 29, applied to the late Mr. Todd for relief from an aneurism in the left popliteal space. Mr. Todd tied the femoral artery, and the patient returned to his work. Three years later, a similar swelling appeared in the right popliteal space, and Mr. Todd ligatured the right femoral artery. The patient enjoyed good health for thirteen years, but died at the age of 45 from malignant disease of the stomach. The arteries were

carefully dissected out after death, and the preparation is now preserved in the museum of the Richmond Hospital.

1014. *O'Connor on a New Treatment for Paraphimosis.*—Dr. M. O'Connor, in the *Brit. Med. Jour.*, January 1883, p. 10, mentions a way, which to him is novel, for reducing paraphimosis. He winds ordinary twine firmly and closely from before backwards around the constricted portion of the penis, thus driving the exudation backwards until the stricture is reached. On unwinding the twine the prepuce comes forward without difficulty, and the proceeding is attended with very little pain. [Several observers have written in subsequent numbers to say that Dr. O'Connor's plan has been practised for many years.—*Rep.*]

1015. *Gabb on Epistaxis: Hemorrhage through the Lacrymal Duct.*—Mr. D. H. Gabb, in the *Brit. Med. Jour.*, April 1883, p. 715, reports a case of a man aged 50, with mitral disease and albuminuria, who caught a severe cold, and, during a paroxysm of coughing, epistaxis came on very profusely. The anterior nares were plugged by Mr. Gabb, and the bleeding apparently ceased; but after two or three hours he was sent for, and found that the bleeding had come on again, with blood running out of the eye, having welled up through the right lacrymal duct, and suffusing the eye. The phenomenon is a curious one, and worth recording.

RICHARD NEALE, M.D.

1016. *Le Fort on Laparotomy.*—In November of last year, M. Léon le Fort reported to the Académie de Médecine of Paris a successful case of laparotomy, performed for the relief of internal strangulation caused by a band. In some remarks on this case, the author pointed out that at the present day the surgeon in dealing with intestinal obstruction by active intervention has to choose between two operations:—one, enterotomy, consisting in an attempt to find through a small incision in the abdominal wall a loop of intestine situated above the obstruction, and to open this in order to let out fecal matter and gas; the other operation, laparotomy, which opens the abdomen freely in order to enable the surgeon to proceed directly to search for the obstruction, and to overcome this by disengaging invaginated intestine by dividing any strangulating band, or by unfolding the knots of a volvulus. Enterotomy, which for many years, under the influence of Nélaton and his pupils, was the sole operative treatment of intestinal obstruction, has of late been performed much less frequently, as a reaction has taken place in favour of laparotomy, which seems likely to be substituted for the former operation. M. le Fort, who prefers laparotomy to enterotomy, points out that in the latter proceeding the surgeon merely gives an issue to intestinal contents; the primary cause of the evil, the strangulation, still persisting. Enterotomy, therefore, does not remove this evil, but only one of its most serious consequences. Laparotomy, on the other hand, permits the hope that the surgeon may reach and remove the primary cause of the symptoms. The case recorded by M. le Fort is one of internal strangulation in a young man, aged 18, who three years previously had suffered from an attack of subacute peritonitis. The patient was first seen by M. le Fort on the seventh day. He was then much exhausted, and in almost a moribund condition; the extremities were cyanosed, the face covered by cold perspiration, and the slightest movement was fol-

lowed by faecal vomiting. The abdomen, though much distended, was not very tender. Chloroform having been administered, an incision $6\frac{1}{2}$ inches in length was made through the abdominal wall in the linea alba, between the umbilicus and the symphysis pubis. After careful examination of the large protruded mass of distended intestine, there was found in the right iliac fossa a small tumour, formed by the agglomeration of intestine strangulated through a small orifice, which felt as if formed by a band. Having passed his little finger into this orifice, M. le Fort drew it carefully towards the external wound and then saw there was a band—a kind of fibrous ring, very resistant and thick, formed by organised adhesions, and which closely encircled a loop of small intestine at a distance of about two inches from the cæcum. The band having been divided by scissors, the intestine, which was much congested, was at once set free. The patient, though in a very feeble condition after the operation, ultimately made a good recovery. One month after the date of the operation, he was able to walk. When seen again after an interval of five months, he had gained much flesh, and appeared vigorous and in good health. In conclusion, it is stated that in the surgical treatment of this case the antiseptic method was not applied. The dressing consisted simply in the use of compresses, saturated with a camphorated spirit lotion.

1017. *Lauenstein on Phlegmon of the Penis.*—Dr. Carl Lauenstein of the Seamen's Hospital, Hamburg, has recently reported (*Centr. bl. für Chir.*, No. 17, 1883) two cases of typical phlegmon of the penis. These two cases presented several features in common, which are of importance, it is thought, in determining the nature of the affection. In each case, the primary ulceration was situated in the sulcus coronarius. If the anatomical relations be considered, it is clear that, through spreading of the ulcer to the attachment of the inner layer of the prepuce and perforation of this layer, a passage is established for the extension of the inflammatory process to the loose connective tissue between the integument and the corpora cavernosa. Probably neglect may be a primary cause, as an elongated prepuce and retained secretion are favourable conditions for the starting of phlegmon. Whether the age of the patient plays any part in favouring the disease, must for the present remain doubtful. One of the author's patients was 56, and the other 58 years of age. In the first of the reported cases the affection was considerably advanced when first seen, whilst in the second case the extension of the inflammation from the fold of mucous membrane to the corpora cavernosa took place whilst the patient was under observation. In these cases, the treatment varied in accordance with the advance of the inflammatory process. In the first case, in addition to lateral incisions the situation of which corresponded to the region below the attachment of the corpora cavernosa to the rami of the os pubis, an incision had to be made into the perinæum, whilst in the second case lateral incisions sufficed to arrest the inflammation. In neither of these cases were the neighbouring lymph-glands affected in any way, and no chancrous affection occurred in the incisions made in the treatment; a remarkable fact, as in both cases the incisions were carried almost as far as the primary ulcer, and as like infection of recent wounds almost always takes place, and in spite of antiseptic measures, whenever it is necessary to divide the

prepuce in the treatment of ulceration of the glans, or of the inner preputial surface. Whether this absence of chancrous infection be associated in any way with the passive condition of the lymph-glands, remains to be determined by the study of a larger number of cases.

1018. *Fowler on Naphthalin in the Treatment of Wounds.*—Dr. George R. Fowler, of Brooklyn, who has had much experience of naphthalin as an antiseptic agent in the treatment of wounds and ulcers, deals in the *Annals of Anatomy and Surgery*, May 1883, with certain objections to its use brought forward by Hoeftmann, of Professor Schoenborn's clinic in Königsberg. To the objection that naphthalin is an irritant to the wound surface, and that this fact militates against its use where union by first intention would be otherwise attainable, Dr. Fowler would reply that, in the case of operation-wounds and other recent injuries of the soft parts where union by first intention is likely to take place, it is not at all desirable to bring any antiseptic into constant contact with the wound-surfaces after they have been brought into an aseptic condition by irrigating them with a solution of carbolic acid or chloride of zinc. Should it be deemed advisable, on the other hand, to adopt the method of primary drainage from an open wound and secondary suture as advocated by Kocher, no more available antiseptic than naphthalin can, it is thought, be desired for the purpose. But one instance has been observed by Dr. Fowler of the occurrence of hæmorrhage after the use of naphthalin. This was a case in which a small fibroid tumour had been removed from the junction of the supra with the intravaginal portion of the cervix uteri. The objection to naphthalin, that it interferes with proper drainage of wound-secrections by its tendency to form crusts, is met by the statement that, while in some instances it does form crusts, yet these can in no way interfere with drainage if the dressings be properly applied. These crusts are always loosely adherent in small scale-like masses, which are easily lifted from the surface at the edges of the wound, beneath and through which the accumulations easily pass. Dr. Fowler has recently been led to doubt the utility of drainage-tubes, and, could he feel assured that every wound under his care was rendered aseptic at the first dressing, would discard drainage-tubes altogether. The nearest approach in Dr. Fowler's experience to eczema produced by naphthalin has been in the case of old ulcers, where a superficial excoriation of the integument immediately adjacent to the site of the ulcer resulted from a neglect on the part of the patient to report as soon as the secretions made their appearance from beneath the edge of the dressings. These excoriations were in no way akin to eczema, and quickly disappeared under the use of an ointment of oxide of zinc. Dr. Fowler states unequivocally that in his experience patients do not complain of pain after the application of naphthalin dressings. Naphthalin has been found by Dr. Fowler to be a most efficient preventive of putrefactive processes in wound-secrections and other organic matter, if intimate contact be insured between the agent and the parts sought to be protected; but he would not trust this agent alone, where a wound had become septic, to restore it to an aseptic condition. The antiseptic qualities of naphthalin are stated to be very inferior to those of chloride of zinc for this purpose; and it is upon this latter agent that Dr. Fowler now mainly rests when from any cause putrefaction has attacked a wound.

1019. *Rydygier on Gastro-Enterostomy.*—The following case in which gastro-enterostomy was performed has recently been reported by Dr. Rydygier, of Kulm (*Centralbl. für Chirurgie*, No. 16, 1883). The patient was a man, aged 54, who during two years had suffered from gastric disturbance and vomiting after meals, and, for a short time before he came under the author's notice, had been unable to take any save fluid food, and this in small quantities. The man was much emaciated, feeble, and his skin presented a well-marked cachectic tint. In the pyloric region could be felt a movable tender tumour, of about the size of an apple. After frequently repeated injection into the stomach of weak solutions of salicylic acid, laparotomy was performed with the primary object of excising the new growth. On opening the peritoneal cavity, however, it was found that a considerable extent of the walls of the stomach had been invaded, and that several glands had become infiltrated. It was at once decided to substitute for resection of the pylorus Wölfler's operation of gastro-enterostomy. The patient did well during the first three days, but on the fourth day, after having suffered from intense pain in the abdomen, and after copious diarrhoea of blood-stained fecal matter, he died in a state of collapse. On *post mortem* examination, it was found that death had been the result of hæmorrhage from the wound in the stomach. The adjacent portion of intestine contained a large accumulation of black blood. In some remarks on this case, Dr. Rydygier states that, in two at least of the hitherto recorded instances of gastro-enterostomy, the urgent and most troublesome gastric symptoms were completely relieved. In one case, treated by Lücke, the patient improved much in general health, and increased in weight, during the first two months after the operation. The cause of the fatal result in this case differed from that recorded in other cases. In one patient on whom Billroth had performed gastro-enterostomy the flow of bile and pancreatic fluid was diverted into the stomach by a valve or spur formed by the wall of the attached portion of small intestine, and death resulted from obstinate and severe vomiting. In a case recorded by Lauenstein, death was due to exhaustion. In Rydygier's case, neither compressing instruments nor provisional ligatures were applied to the stomach or small intestine during the operation. Hæmorrhage and discharge of gastric contents into the peritoneal cavity were prevented by the hands of assistants. Here, then, the danger of hæmorrhage attributed by Lauenstein to the use of compressing instruments occurred after simple manual pressure.

W. JOHNSON SMITH.

1020. *Schönborn on the Removal of a Mass of Hair from the Stomach.*—At the twelfth meeting of the German Surgical Association in Berlin, on April 5, Dr. Schönborn, of Königsberg, showed a mass of hair which had been removed from the stomach of a young girl, in whom the presence of a tumour had been diagnosed for one and a half years. The tumour was in the left epigastrium, and was taken for a splenic growth or a floating kidney. Digestion was normal, but fits of vomiting came on at intervals of from three to five days. An opening about five inches long was made in the anterior wall of the stomach, the mass of hair was turned out, and convalescence followed rapidly. The tumour consisted of innumerable short pieces of hair, which had become felted together, constituting a mass weighing

381 grammes (over 13½ ozs.). The girl and her companions had been in the habit of biting off the ends of their plaits of hair and swallowing them, in the belief that they would thereby attain a fine voice. There are seven similar cases in medical literature, all of which, with the exception of one half-grown boy, were met with in the female sex, and none of which were mentally diseased. None of those other cases were diagnosed during life, but all died with symptoms of peritonitis, so that this is the first case of cure. [The age of the patient is not given.—*Rep.*]

1021. *Langenbuch on Removal of the Gall-Bladder.*—At the meeting of the German Surgical Congress in Berlin on April 7 (*Wien. Med. Blätter*, May 31), Dr. Langenbuch of Berlin showed a woman, aged 34, from whom he had removed the gall-bladder. The patient had suffered from gall-stones for nine months; the gall-bladder was felt as a hard, prominent, sensitive tumour. On opening the abdomen, the gall-bladder was found to be hypertrophied and adherent to the neighbouring tissues, and to contain a large number of stones, some of them adherent to the walls, and threatening perforation. The viscus was emptied by a Pravaz's syringe, and then easily detached behind the cystic duct; and the patient now looked well and blooming, although she had had a floating kidney removed in 1881. Langenbuch had operated before on a man who had been taking morphia for years on account of the pain. The operation was successful, and the wound healed well; but the patient died from cerebral anæmia.

1022. *Küster on the Removal of Cancer of the Breast.*—At a meeting of the Medical Society of Berlin (*Deutsche Med. Wochens.*, April 25), Dr. Küster, in speaking of cancer of the breast, laid great stress on the importance of removing all glands from the axilla in cases where extirpation of the mamma is indicated, even if the glands do not appear to be enlarged. Out of 117 cases in which he had examined microscopically the extirpated glands, only two were found in which they were not cancerous. In the course of the discussion, Esmarch recommended amputation of the arm, in cases where the glands were so adherent to nerves and vessels as to make complete removal impossible.

1023. *Gussenbauer on Avulsion of the Scalp by Machinery.*—In the Society of German Physicians in Prague on March 16 (*Wien. Med. Blätter*, April 5), Professor Gussenbauer showed a case in which the entire scalp had been removed by machinery. The integuments, which were attached by a strip of skin to the neck, were replaced the same day, but adhesion did not take place, and the healing had to be carried out by skin-grafting. Both in this case, and in a former one in the same factory, where death occurred from hæmorrhagic meningitis, the skin was separated along the line of the glabella.

ALICE KER, M.D.

1024. *Wulff on a Case of Progressive Osteomalacia.*—Dr. F. Wulff (*Petersb. Med. Woch.*, 1882, and *Centralblatt für die Med. Wiss.*, May 5) relates the following case. A man, aged 26, an officer's servant, had suffered in childhood from variola, and subsequently from repeated attacks of malarial fever. Some months ago, he began to suffer from pains in his back and lower extremities. Three months later, he fell and fractured his right arm and collar-bone; then, five months afterwards, he incurred fracture of both femora and the left

upper arm. While lying in bed with these injuries, he experienced severe crampy pains in the left arm. A peculiar deformity gradually supervened in the course of a few months. The trunk seemed crumpled and shortened. The chest and abdomen were doubled on one another; the ribs, from the second downwards, were unusually curved and inelastic, so that the form of the thorax was permanently altered by the painful movements of the patient; the sternum retained its normal firmness; the lower angle of the left scapula was turned outwards; the fractured right arm had healed perfectly; the callus was evident at the seat of fracture on the left arm; the pelvis was much deformed by the maintenance of one position upon an air-bed; the os sacrum and os pubis were both distorted laterally; the bones of the cranium and of the face were unaffected. At a later period, the upper extremities became still more deformed, in consequence of the inconvenient posture that the patient was compelled to adopt in drinking. For a long time his general health was good (under the use of phosphorus). The yielding of the bones then began to affect the skull and jaws. Dyspnoea occurred, and he died after about three years' duration of the malady. The urine had for a long time been greatly augmented in quantity, although it was but little altered in quality, slightly acid, specific gravity 1.014; urate of soda, scattered blood-corpuscles, cell-fragments, and bacteria, were found in the sediment. At a later period, the quantity of urine passed in forty-eight hours, fell below half its former quantity, while the saline matters became increased, and a small proportion of albumen appeared. The length of the body had lost about twelve inches from the date of his entering upon military service. Examination of the skeleton showed extensive softening of the bones. Nothing abnormal was discovered in the abdominal viscera, except that concretions were met with in the calyces of both kidneys. Microscopical examination of the bones found a deficiency of osseous trabeculae and excess of medullary tissue.

W. B. KESTEVEN, M.D.

1025. *Galileo on Hepatitis of the Concave Surface of the Liver, terminating in Suppuration: the Abscess opened externally: Cure.*—A youth, aged 23, fell ill on Sept. 1 last, with symptoms of hepatitis. After a fortnight the character of the fever, irregular chills, colligative sweats, and local symptoms made suppuration evident. A blister was applied to the painful part to hasten matters. After four days the abscess appeared, perfectly limited to the posterior border of the right lobe; fluctuation was felt, and there were evident adhesions to the peritoneum, since the abscess was not influenced by the position of the patient. A trocar was inserted, and 18 ounces of thick, creamy pus, some white, some blackish, with difficulty flowed out. The cannula was left in as a drainage-tube. Not to allow the entrance of air, it was carefully closed with cork, which was removed every two days to allow the matter to escape. In the first three times over 3 pints of matter were collected. The patient improved rapidly. In ten days, a drainage-tube was inserted instead of the cannula, and he was allowed to get up. He made a very good and quick recovery.

1026. *Saez on Elephantiasis of the Scrotum.*—On Sept. 17 last, Dr. C. Saez removed an immense tumour of the scrotum, which had been forming for 20 years. Its weight was 12½ pounds. Its pedicle at the least of the groin measured 2.30 mètres in

circumference, and 0.90 mètres in all diameters. The operation lasted nearly two hours. The left testicle was saved, a scrotum being made from the sound skin of the pedicle. Five days after the operation, when the case was reported, the patient was progressing favourably.

G. D'ARCY ADAMS, M.D.

MEDICINE.

RECENT PAPERS.

1027. BEEVOR.—Morbillic Rash in Typhoid Fever. (*Brit. Med. Jour.*, May, p. 956.)

1028. ROBERTS.—Two Cases of Cirrhosis of the Liver. (*Ibid.*, May, p. 1002.)

1029. DREW.—Gastro-Intestinal Catarrh simulating Typhoid Fever. (*Ibid.*, May, p. 961.)

1030. Larve of Flies in the Human Intestine. (*Brit. Med. Jour.*, March, p. 573.)

1031. WILKINS.—A Case of Obliteration of the Superior Vena Cava. (*Lancet*, May, p. 812.)

1032. FLINT.—The Production out of the Body of Pulmonary Fibres obtained by Auscultation and Percussion. (*Ibid.*, May, p. 809.)

1033. MICKLE.—Tubercular Pericarditis.—(*Lancet*, May, p. 898.)

1034. STONHAM.—The Causation of Cardiac and Pulmonary Dyspnoea in Diseases of the Heart. (*Ibid.*, June, p. 946.)

1035. MATHIEU.—Two Cases of an Infectious Complaint accompanied by Articular and Peri-articular Trouble. (*Revue de Méd.*, March.)

1036. MOLINER Y SANZ.—On a Rare Form of Paludism. (*El Siglo Médico*, May 6, 1883.)

1037. KARPINSKY, K.—Cases of Glanders in Man. (*Verh.*, 1882, No. 23, pp. 380-2.)

1038. CALMETTE.—The Relations between Glycosuria and Diabetes and the different Forms of Malarial Fever.

1039. Chyluria and Filaria Sanguinis. (Virchow's *Archiv.*, Band lxxxix.; and *Centralbl. für die Med. Wiss.*, Feb. 17.)

1040. ROSENBAACH.—Essential Anæmia. (*Deutsche Med. Wochenschr.*, May 9.)

1041. NOTHNAGEL.—Chronic Intestinal Catarrh. (*Wiener Med. Blätter*, May 24 and 31.)

ART. 1027. *Beevor on Morbillic Rash in Typhoid Fever.*—Mr. Beevor, in the *Brit. Med. Jour.*, May 1883, p. 956, cites a case of a nurse who had been ten days nursing two cases of typhoid fever, when she suddenly complained of the premonitory symptoms of an acute febrile attack, temperature running up to 104°. On the third day, a rash exactly resembling that of measles appeared first on the feet and legs, and afterwards on the chest and arms, yet she had no coryza nor conjunctivitis. The rash gradually faded, and was not followed by desquamation. On the fourth day typhoid stools, brown tongue, and pain in the right iliac region, pointed to typhoid fever, and the subsequent history of the case was that of ordinary typhoid fever. Cases of this kind are often turning up and may easily lead to an incorrect diagnosis. [In addition to papers on this subject, noted in the *Medical Digest*, Section 1494:5, a valuable communication by Dr. Mahomed is to be found in the *Lancet*, May 1883, p. 686.—*Rep.*]

1028. *Roberts on Two Cases of Cirrhosis of the Liver.*—Dr. Frederick Roberts, in the *Brit. Med.*

four., May 1883, p. 1002, reports two cases of cirrhosis of the liver, illustrating points in diagnosis and treatment. The first was that of a man, aged 39, who was admitted suffering from cirrhosis of the liver, accompanied with localised ascites. The abdomen was much distended, especially in the epigastric region. Immediately above the umbilicus there was a distinct groove, a quarter of an inch deep and two inches wide, running across the abdomen; above this groove there was a distinct rounded prominence, and the lower part of the thorax was bulged out and everted, especially on the right side, where the lower intercostal spaces were obliterated. The general feel of the abdomen was that of tension from fluid, and no solid of any kind could be felt. Fluctuation was easily produced in the upper part of the abdomen, almost absent in the groove, and fairly marked below it. Ten days after admission, it was decided to tap the patient a little below the ensiform cartilage, when four and a half pints of fluid were drawn off. The fluid was almost solidified by adding nitric acid, and no traces of hooklets were found. Two days afterwards the patient was again tapped, this time between the umbilicus and pubes, and nine pints of fluid were drawn off, in character the same as before. The patient gradually sank, and died about six weeks after admission. At the *post mortem* examination, it was discovered that the great omentum was adherent to the left end of the liver, forming a distinct sac with the convexity downwards, bounded below by the colon. The interior of this sac communicated with the rest of the peritoneal cavity by a small opening which would just admit three fingers. The liver weighed 67 ounces, and was very hard and granular; other organs fairly healthy. The second case was that of a man, aged 49, who was admitted with extensive ascites, and was tapped a few days after admission, when 18½ pints of fluid were drawn off. Subsequently the patient had profuse diarrhoea for about fifteen days, during which time the measurement of the abdomen, at the level of the umbilicus, decreased from 40 inches to 33 inches, and in a few weeks the patient was discharged. The abdomen was quite free from fluid; he slept and ate well and felt 'quite another man.'

1029. *Drew on Cases of Gastro-Intestinal Catarrh Simulating Typhoid Fever.*—Mr. J. H. Drew, in the *Brit. Med. Jour.*, May 1883, p. 961, relates three well-marked cases. The symptoms commenced with rigors, pains in the head and abdomen, coated tongue, a tendency to sickness and diarrhoea, with a persistent rise of temperature to not higher than 102°. The evacuations were mucous and not like those of typhoid, and there was no rash or delirium. Towards the end of the second week these symptoms subsided, and convalescence was rapid, with no tendency to relapse. In a discussion which ensued, Mr. Cripps Lawrence referred to an account of gastro-intestinal catarrh given by Vogel and Niemeyer, and considered that a diagnostic point of importance in these cases was that there was no evening rise of temperature as in typhoid fever. Dr. Symes Thompson said that there was undoubtedly a difficulty in some of these cases in distinguishing them from typhoid fever.

1030. *Larvæ of Flies in the Human Intestines.*—In the *Brit. Med. Jour.*, March 1883, p. 573, an article is given on the subject of larvæ in the human intestines, and an instance is given of a case of a farm boy, aged 21, who sought advice for colicky pains and constipation. One-eighth of a litre of

Hunyadi János water was prescribed, to be taken every morning on an empty stomach. On the third day a vast mass of larvæ, partly alive and partly dead, were passed by the rectum. The uneasy sensations were at once removed. The larvæ on examination were found to be those of a common dipterous insect, closely allied to the house-fly and blue-bottle. Amongst other species of insects that have been found in the faeces of the human subject in the larval form may be mentioned the common fly, the blue-bottle, the lesser house-fly, also the caterpillar of the common tabby moth.

1031. *Wilkins on a Case of Obliteration of the Superior Vena Cava.*—Dr. Wilkins, in the *Lancet*, May 1883, p. 812, records a case of a man, aged 34, who was admitted into the Montreal General Hospital on account of dyspnoea and a feeling of fulness in the head. He said that twelve months previously, when lifting a heavy weight, he felt something give way in his chest. This was immediately followed by severe dyspnoea. He gave up work for a time, and for the next six months had occasional attacks of dyspnoea, with pain in the region of the heart. The severe symptoms abated after this until four weeks before admission, when he suddenly felt 'as if he would smother,' and coughed up a small quantity of blood. Four days before admission, his breath became very short. On admission, the heart and chest signs were normal; there was some swelling and tenderness on each side of the neck just over the great veins. About six weeks after admission, signs of fluid appeared in the left side of the chest, with œdema of the face; subsequently the chest was aspirated, and fluid drawn off in considerable quantities, every three or four days. The fluid was always clear. The urine never contained albumen, and there was never any œdema of the legs nor any ascites. For five or six weeks the patient remained much the same, being relieved by frequent tapplings; but at length the dyspnoea became more urgent, the right side of the chest also became filled with fluid, the pulse and temperature ran up, and the patient died from dyspnoea, followed by coma. The whole amount of fluid removed by the aspirator was 862 ounces, the greater portion from the left side. On *post mortem* examination, the superior vena cava was found to be obliterated, and was transformed into a firm fibrous cord, the result of a thrombus in the vessel. Organised thrombi extended into the innominate and internal jugulars. [An interesting series of similar cases may be consulted by reference to section 751:1, *Medical Digest*.—*Rep.*]

1032. *Flint on the Production of the Body of Pulmonary Signs obtained by Auscultation and Percussion.*—Dr. Austin Flint, in the *Lancet*, May 1883, p. 809, gives a summary of the lecture he delivered in the Bellevue Hospital, New York, illustrating artificially the various sounds obtained by auscultation and percussion in health and disease. A loaf of bread illustrates admirably the different notes obtained by percussion; by soaking a portion of the loaf, flatness of pulmonary sounds may be imitated, and just above the line of immersion, dulness, identical in character with that which occurs in diseased states of the lung, is obtained. Tympanitic resonance is readily produced by removing, in a portion of the loaf, all but the crust. Respiratory signs are not produced so easily, but may be fairly well developed outside the body by using human lungs or those of the sheep. By inserting the nozzle of a pair of

bellows into the trachea, and imitating the acts of respiration, the distinctive characters of the respiratory murmur may be satisfactorily studied. Bronchial respiration is illustrated by simply blowing into tubes of different sizes. Râles are artificially produced by India rubber tubes of different sizes; after forcing water through the tubes, there remains enough to give rise to these râles for some hours on passing a current of air, either from a syringe or the mouth, through the tubes, and holding them close to the ear. With regard to the vocal signs, viz., bronchophony, simple increase of vocal resonance, ægophony, and pectoriloquy, only ægophony can be readily produced in lungs removed from the body. The author requests that those who have devised means of producing sounds, artificially, should publish their results.

1033. *Mickle on a Case of Tubercular Pericarditis*.—Dr. Mickle, in the *Lancet*, May 1883, p. 898, notes a case of tubercular pericarditis occurring in a patient aged 54, the majority of cases met with being under forty years of age. Dr. Mickle's patient had been for many years insane, hemiplegic, and aphasic, and died comatose after a general convulsion. On *post mortem* examination, it was found that the layers of the pericardium were closely conjoined and adherent, by thick intervening dry false membranes, and both the serous layers were thickly strewn with numerous embedded tubercular nodules of dirty-whitish hue. The lungs showed signs of old adhesions with caseous nodules, with tubercles in the right lung at the apex. Short notes are also given of another case of a man who died at the age of thirty-one. He had suffered for many years from chronic mania, and a few months before his death had signs of pleurisy. At the *post mortem* examination, it was found that over the whole surface of the heart were scattered firm whitish patches of fibro-caseous appearance, and, besides these, miliary granulations were detected on both the visceral and the parietal layers of the pericardium.

1034. *Stonham on the Causation of Cardiac and Pulmonary Dyspnoea in Diseases of the Heart*.—Mr. C. Stonham, in the *Lancet*, June 1883, p. 946, gives a short article on the causes of dyspnoea in advanced cases of valvular disease of the left side of the heart, in which there is a want of compensation and pulmonary congestion. Hitherto this dyspnoea has been regarded as the consequence of pulmonary congestion, with œdema of the lungs and pleuræ; but the author shows that there is another condition constantly at work in producing these attacks of dyspnoea, and especially those attacks which come on just as the patient is dropping off to sleep, and which are relieved by a hypodermic injection of morphia ($\frac{1}{4}$ or $\frac{1}{2}$ grain). The explanation given of these cases by Mr. Stonham is that the blood, being more venous than natural, acts as a stimulus to the medulla oblongata, and causes the state of excitement which is shown by the attack of dyspnoea. Just as the brain is going to sleep, the respiratory centre is supplied with less blood than it has been accustomed to during the day, and consequently with less oxygen; the balance becomes disturbed, and the centre breaks loose, as it were, causing an attack of dyspnoea. The morphia acts as a sedative to the whole nervous system, and therefore arrests the attack.

RICHARD NEALE, M.D.

1035. *Mathieu on Two Cases of an Infectious Complaint accompanied by Articular and Pericardiac Troubles*.—In the *Revue de Médecine* for

March, Dr. Mathieu records two cases of a somewhat extraordinary nature. In the first, a young man, aged 25, a wine-merchant, was suffering from 'herpetic fever,' and it was found that there was also tumefaction in front of the head of the humerus, accompanied by sharp pains about the joint. The principal seat of tenderness was in the midst of the space between the deltoid and pectoralis major. There were profuse sweating, epistaxis, and marked increase of splenic dulness, while there were also dulness and bronchial breathing at the base of the right lung. Typhoid depression ensued. These symptoms were followed by the appearance of matter in the middle of the arm behind the vasculo-nervous bundle, the skin having a phlegmonous aspect. The pus on its evacuation was at once submitted to microscopic examination, and showed numerous micro-organisms both in chains and in double points. The opening of the abscess was followed by recovery. In the second case the patient was a man, aged 64, the subject of syphilis, which gradually disappeared under the influence of the green iodide of mercury. Simultaneously with the disappearance of the syphilitic symptoms, rigors, fever, delirium, pain and swelling of the right wrist, especially in the region of the external lateral ligament, together with pleuritic physical signs on the left side, indicated the presence of the infective malady, the case terminating fatally on the seventh day of the later symptoms. The necropsy showed fibrinous pleuritic exudations and pleuritic effusion, patches of pulmonary apoplexy and splenisation of the lung, inflamed and suppurating ganglia about the size of nuts in the root of the right lung, no valvular nor endocarditic lesions, hæmorrhagic centres in the liver, and patches of injected veins immediately beneath Glisson's capsule; the kidneys enlarged and congested, with serous or sero-sanguineous cysts, and hæmorrhagic foci; the splenic capsule thickened, and the intestine congested, but without glandular inflammation. The fluid, both from the pleural cavity and from the right wrist, contained numerous organisms in chains or moving points. In regard to these cases, the author points out that they resembled each other in that a primary weakening cause (in the one case herpetic fever in an overworked and intemperate man—in the other syphilis) predisposed to the reception of an infectious malady, characterised by the general state, the high temperature, the articular or circum-articular manifestations, the lesions in the lung, and the softening, with, in the first case, the enlargement of the spleen. The tendency to localised hæmorrhages in the liver, kidneys, intestines, and other viscera points, moreover, by analogy to the class of infectious diseases, as being the cause of the unwanted symptoms that distinguished the arthritic troubles from those of rheumatism.

K. W. MILLICAN.

1036. *Moliner y Sanz on a Rare Form of Paludism*.—Dr. Moliner y Sanz reports an epidemic which occurred in Dega in 1881 where malarial fevers are not prevalent. The epidemic occurred in the second fortnight of June and August, coinciding with the greatest summer heat. In the autumn of the previous year a great storm had inundated the country, and caused much damage. The disease attacked 34 individuals, 27 men, and 7 women, all vigorous and healthy, aged from 15 to 40, and all employed in agricultural pursuits. The attack commenced with shivering and lassitude; on the second day insomnia, frontal headache, flushed face, loss of appetite, diarrhoea and vomiting, precordial distress, slight

rise of temperature, pulse frequent and small. This, the first stage, lasted from three to five days, and was followed by the second and much more alarming, characterised by paleness of face, expression of terror, frequent syncope, terminating by cold sweats more or less profuse, disturbed sleep. The temperature varied between 99.5° and 104.5° Fahr., without periodicity. No function was more profoundly disturbed than the circulation; the heart's action was violent; in the worst cases the precordial dulness was increased, loud and confused murmurs, the pulse dilated, dirotic rarely polycrotic, intermittent, sometimes seeming not to beat for an interval corresponding to four or more pulsations, sometimes intermitting at regular intervals, unequal and irregular; in a word, every pathological modification of which the pulse is susceptible was met with in nearly every patient. One might say the heart was attacked by chorea. The urine was scanty and bloody, containing a variable amount of albumen. The termination of the illness was from the tenth to the fifteenth day; the syncope disappeared, sleep was obtained, and the heart's action was quieted, and, as if from fatigue, the heart for a long time continued to beat very slowly; thus for a month or more the pulse was only 40 in the minute, and in two cases 28 only. The only treatment of any avail was quinine in full doses. All the patients recovered, and continued to suffer from fever of the tertian type, with anæmia, oedema, and splenic tumour. Cardiac paludism seems the most descriptive title to give to the epidemic.

G. D'ARCY ADAMS, M.D.

1037. *Karpinsky on Cases of Glanders in Man.*—Dr. K. Karpinsky, of Berdiansk (*Vratch*, 1882, No. 23) asserts that this terrible disease occurs in man not so rarely, unfortunately, as it is generally believed. At least, within the last four years he has come across eight instances of farcy in human patients, five of the cases being of an acute variety, three of a chronic. Six patients died, five within a few weeks from the infection, one at the end of a year. The remaining two patients are in the way to recovery. One of them is a medical man, who contracted the disease when making a hypodermic injection in a glandered peasant, and afterwards wiping a drop of blood with his abraded forefinger. Having detailed his cases, Dr. Karpinsky remarks that the diagnosis of acute glanders becomes comparatively easy only when all the symptoms of the affection are fully developed; in the beginning, it may be mistaken for acute rheumatism, or even typhoid fever. The diagnosis of chronic farcy presents still greater difficulties; the author thinks that many cases of the chronic variety are regarded by observers as rheumatism or neuralgia, and treated as such. The danger from infection through the air-passages seems to be slight; at least, the author did not meet any instance of transmission of the disease from a glandered patient to those who nursed him. [The latter statement by Dr. Karpinsky is well supported by a case of acute glanders in a lad, reported by Dr. T. Geshelin in the *Vratch*, 1882, No. 24, p. 399. The mother of the lad slept in one bed with her son through all his illness, even when his nose and the whole face became ulcerated. The lad died, but she, as well as other numerous members of the family who inhabited the same room, remained entirely free from the disease. An able description of two fatal cases of human farcy by Dr. F. I. Pasternaki may be found in the *Ejened. Klin. Gazeta*, 1881, Nos. 15,

16, and 17. A very interesting case of (seven days') glanders, mistaken during life for pyæmia, in a man who was simultaneously a 'trimmer' of carrion and sausage-maker, is published by Dr. A. Preferansoff, of Cronstadt, in the *Vratch*, 1881, Nos. 48 and 51.—*Rep.*]

V. IDELSON, M.D.

1038. *Calmette on the Relations between Glycosuria and Diabetes, and the Different Forms of Malarial Fever.*—Dr. E. Calmette records his observations, made in the malarial district around Tunis. These relate—1, to forty-one cases of remittent or intermittent fever, in five of which there was a transitory presence of sugar in the urine; 2, to fifty-five cases with jaundice and subconjunctival extravasation of blood. In several of these, a transitory albuminuria was seen, but no sugar in the urine. The patients of both categories, several months afterwards, passed urine without either sugar or albumen, but with a considerable quantity of phosphates and oxalate of lime. Among the natives, diabetes is very frequently met with in those who had suffered from malarial fevers. The same is not observed among the population in towns, a circumstance which M. Calmette attributes to a relation between malaria and oxaluria; the separation of sugar or oxalic acid depending upon a disturbance of the glycogenic function of the liver.

1039. *Case of Chyluria with Filaria Sanguinis.*—The following case is given in the *Centralblatt für die Med. Wiss.*, Feb. 17 (from Virchow's *Archiv*, Band xxxix.). A woman, aged 32, after violent bodily exertion, suddenly passed chylous urine; she had for some time previously suffered from a dull pain in the left hypogastrium. The urine looked like milk, had acid reaction, and contained albumen but no sugar; its specific gravity was 1018. Lumps of fibrin were sometimes evacuated, and the microscope detected in these oil-globules, white and red blood-corpuscles, and filaria in the sediment. Examination of the bladder, and catheterisation of the left ureter, were effected after dilatation of the urethra. The withdrawal of the catheter was followed by a flow of milky urine into the bladder. A great number of filaræ were found in the blood, especially between nine and eleven o'clock at night; after two o'clock, none were passed. The patient's health gradually failed more and more; chylous diarrhæa occurred, and death took place about six months after the accident. The *post mortem* examination could only be imperfectly performed. On the left side of the pelvis there was found a large multilocular sac distended with chylous fluid. The enlarged urinary bladder, which appeared imbedded in a fold of this sac, communicated therewith by an aperture in its upper wall. The abdominal lymphatic glands and lacteal vessels were enlarged and dilated. This cystic tumour the author considered to have had its origin in the fusion of the lymphatic vessels, and dilatation through thrombosis, with the presence of filaria.

W. B. KESTVEN, M.D.

1040. *Rosenbach on Essential Anæmia.*—Dr. Rosenbach, of Breslau, writing on essential anæmia (*Deutsche Med. Wochenschr.*, May 9), points out three characteristics of the disease. 1. It recurs at certain seasons of the year, so that we can distinguish a spring, a summer, and an autumn form. Cases occurring in winter are extremely rare, and those belonging to the height of summer seem to be the most severe. 2. A peculiar craving for acids is displayed by the patients, which must not be

supposed to be merely a deficiency of hydrochloric acid in digestion, as any other acid, and even fresh fruit, supplies the want. The desire for acids ought to be gratified, as it is the assimilation of the patient that is at fault, and the organism instinctively demands what is needed. 3. Instead of feeling strongest in the morning, the patients are at their best in the late afternoon and evening, or sometimes even far into the night. Their desire for food follows the same rule, and it is best to let them eat at the times when they feel most appetite, irrespectively of ordinary meal-times. It is also of no use to try to ensure brightness and freshness in the morning by making them go early to bed, as they do not sleep until their time of feeling strong has passed off. They ought to be as much in the sun and fresh air as possible, but ought not to fatigue themselves with walking. The anaemia of puberty is not included in these remarks; and Dr. Rosenbach has found that the prognosis of the cases of essential anaemia is more favourable when the weakness and want of appetite are periodical, than when the patients are always tired, and refuse all kinds of food alike.

1041. *Nothnagel on Chronic Intestinal Catarrh.*—Professor Nothnagel, at the meeting of the Royal and Imperial Society of Physicians at Vienna on May 18 (*Wien. Med. Blätter*, May 24 and 31) spoke on the subject of chronic intestinal catarrh, which, he said, has been little mentioned in text-books. There is also no explanation given in physiological text-books, of the fact that healthy individuals have generally only one stool in the twenty-four hours; and Nothnagel thinks that no explanation can be given, but that it is one of those arrangements, depending partly on the anatomical relations of the parts, and partly on innervation, for which we cannot account. Chronic intestinal catarrh may be considered to be present when mucus appears in the motions, although the absence of mucus must not be regarded as conclusive evidence against the existence of catarrh. Nothnagel divides the cases of chronic intestinal catarrh into four classes: 1. Those patients who have a stool every second or third day, often produced artificially; this is the type of primary chronic catarrh of the large intestine, and depends, according to Nothnagel, on diminished anatomical activity of the ganglion-cells: 2. Cases where a stool is passed daily, but each time thin, pulpy, and mixed with mucus: 3. Cases with irregularity in the state of the bowels, sometimes constipation, sometimes diarrhoea, and sometimes an alternation between the two; the diminished activity of the nerve-cells explains the constipation, and the irritation of the faeces causes eventually the diarrhoea, which may also be excited by a very small error in diet: 4. Cases with continued diarrhoea. Here, however, chronic ulceration of the bowels must be distinguished from catarrh. Where diarrhoea is present without ulceration of the large intestine, Nothnagel has always found an affection of the small intestine as well. When the food does not undergo its normal changes in the small intestine, it acts as an irritant on the mucous membrane of the colon, and causes the diarrhoea. Some patients have a stool after each meal, some after a mid-day meal only, and some after an evening meal only. Nothnagel would explain this by referring it to nervous influence.

ALICE KER, M.D.

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

1042. HILLER.—Bromine in Diphtheria. (*Deutsche Med. Wochensh.*, May 30.)
1043. KUSTER.—The Application of Iodoform to the Peritoneum. (*Deutsche Med. Wochensh.*, April 25.)
1044. CRONER.—Papayotin in Diphtheria. (*Deutsche Med. Wochensh.*, May 30.)
1045. UNNA.—On Ichthyol. (*Wien. Med. Blätter*, May 10.)
1046. SZUMAN.—Successful Intravenous Injection of a Saline Solution. (*Berliner Klin. Wochensh.*, May 21.)
1047. MASCHKA.—The Action of Extract of Calabar Bean in Diarrhoea. (*Berliner Klin. Wochensh.*, April 9.)
1048. DELBASTAILLE.—The Use of Peromic Acid as a Subcutaneous Injection. (*Centralbl. für die Med. Wiss.*, March 31.)
1049. KAULICH.—The Treatment of Diphtheria by Corrosive Sublimat. (*Bulletin Gén. de Thé.*, April 15.)
1050. FILIPOVITCH, V.—On the Antiseptic Action of Trichloroacetic Acid. (*Pratch*, 1883, No. 16, pp. 242-3.)
1051. BOMBIN.—Resorcin as a Local Application. (*El Sentido Católico*, April 22.)
1052. BOZZOLO, PROF.—On the Action of Iodoform in Diabetes Mellitus. (*Gazz. degli Ospitali*, Feb., and *Lo Sperimentale*, May 1882.)
1053. SEMMOLA, PROF.—On the Use of Glycerine in Acute Fevers. (*Italia Medica*, No. 6, 1883.)
1054. SCARFARI.—Parenchymatous Injections of Tincture of Iodine in some Forms of Bronchocele. (*Gazz. Med. Ital. Prov. Venete*, May 12, 1883.)
1055. COOK.—The Influence of Drugs on the Excretion of Urea and Uric Acid. (*Brit. Med. Jour.*, May, p. 857.)
1056. BRADBURY.—A Case of Diabetes Treated with Codeia. (*Brit. Med. Jour.*, May, p. 869.)
1057. PHILLIPS.—Exophthalmic Goitre treated with Duboisia. (*Brit. Med. Jour.*, May, p. 958.)
1058. BROWN.—On Paraldehyde. (*Brit. Med. Jour.*, May, p. 956.)
1059. SANCTUARY.—Nitrite of Amyl in Uremic Asthma. (*Brit. Med. Jour.*, May, p. 956.)
1060. GRANVILLE.—Habitual Constipation. (*Brit. Med. Jour.*, May, p. 1001.)
1061. BROWN.—Cannabis Indica in Menorrhagia. (*Brit. Med. Jour.*, May 1883.)
1062. HASSALL.—Antiseptic Inhalations in Phthisis and other Lung-Diseases. (*Lancet*, May, p. 765.)
1063. WILLIAMS.—Treatment of Diabetes Insipidus by Ergot. (*Lancet*, May 1883.)
1064. ALLEBUTT AND OTHERS.—Chorea treated with Large Doses of Succus Conii. (*Lancet*, May, p. 905.)
1065. HAY.—The Chemical Nature and Physiological Action of Nitro-glycerine. (*Practitioner*, June.)
1066. BRANNIGAN.—Prolonged Suspended Animation due to Atropia applied Hypodermically. (*Med. Times and Gaz.*, May, p. 581.)
1067. ALEXANDER.—Prolonged Suspension of Vitality due to Atropia applied Hypodermically. (*Med. Times and Gaz.*, May, p. 582.)
1068. NELSON.—On Veratrum Viride in Typhoid Fever. (*Archives of Medicine*, April 1883.)

ART. 1042. *Hiller on Bromine in Diphtheria.*—At a meeting of the Verein für Innere Medicin in Berlin on May 21 (*Deutsche Med. Wochensh.*, May 30), Dr. Hiller spoke on bromine in the treatment of diphtheria, having had a favourable experience of it in the wards of the Charité Hospital. He employs an aqueous solution, combined with bromide of potassium, four parts of each to 2,000 of water, as an

inhalation. As it is important to prevent the gas from entering the nose and eyes, a glass cylinder ought to be used for inhaling, and like precautions must be taken in making the applications to the throat, for which a stronger solution, 5 to 1 per cent., is employed. The throat should be painted every half hour, and the gas inhaled twice as often, and the frequency of the applications is an important part of the treatment. It removes the membrane within twenty-four hours, and a tendency to return is easily checked by renewed applications. Bromine was recommended by Schütz and Gottwald so long ago as 1862, and Hiller thinks it is only its irritating properties which have prevented it from coming into general use before now. Herr Rabow related a case where a man, who had been ordered bromine to inhale, drank almost the whole contents of the bottle, which had contained 1 gramme (15 grains) of bromine and an equal quantity of bromide of potassium, diluted with 100 parts of water. No poisonous effects followed, and the patient speedily recovered from his diphtheritic attack. Herr Steinhauer had seen irritation of the trachea, leading to diphtheritic deposit, follow the inhalation of bromine; but it was pointed out by Herr Wernich that such an effect might be prevented by inhaling through a narrow opening, so as to limit the action of the gas.

1043. *Küster on the Application of Iodoform to the Peritoneum.*—At a meeting of the Berlin Medical Society (*Deutsche Med. Wochens.*, April 25) Dr. Küster described his method of applying iodoform to the peritoneum, so as to obtain its full aseptic action, without any toxic dangers. In ovariotomy cases he passes over all the coils of intestines a sponge which has been dipped in iodoform, and from which all the superfluous powder has been shaken or beaten off, so that the thinnest possible film is all that adheres to the peritoneum. He also places an iodoform plug in the vagina. He strongly recommends iodoform collodion in wounds of the face or about the genital organs, or in any other situation where ordinary antiseptic dressings cannot be easily applied.

1044. *Croner on Papayotin in Diphtheria.*—In the Verein für Innere Medizin, on May 21 (*Deutsche Med. Wochens.*, May 30), Herr Croner reported a case in which he had treated diphtheria with papayotin with great success. The attack was a severe one, in a boy, with extensive deposition of membrane and pronounced general symptoms; the sensorium being affected, and the morning temperature reaching 104° F. The throat was painted every hour with a four per cent. solution of papayotin, and in five hours the membrane was reduced to a sort of loose network, which soon disappeared. The temperature at the same time fell from 104.9° to 102° F., and convalescence progressed without any return of the membrane. Other members of the Society reported similar cases, although one or two had seen but small results from the drug; but the mass of evidence was in favour of its being at least as efficacious as, if not more so than, the forms of treatment already in use.

1045. *Unna on Ichthyol.*—Unna has experimented with ichthyol in articular rheumatism (*Wien. Med. Blätter*, May 10), and has found it of great service when applied externally in combination with vaseline. The pain is stilled as quickly as by the internal use of salicylic acid, and without the same risk of injuring digestion. He has found it useful even in old cases of rheumatism, with deformity, where it may

be used in the proportion of 50 per cent., or the pure ichthyol may be applied once a day, the other applications being made twice. It has also relieved rheumatic pain in the scalp. Its disagreeable smell may be disguised by the addition of cumarin and vanillin. In the form of vapour it has been of service in affections of the upper part of the air passages, but it must be heated in a water-bath to prevent decomposition. It has been used as a spray for various forms of angina, with good results.

Alice Ker, M.D.

1046. *Szuman on Successful Injection of a Saline Solution.*—Dr. L. Szuman of Thorn (*Berliner Klin. Wochens.*, May 21) states that, besides the case here related, there are on record eight other cases of injection of saline solutions into the veins for several accidents and diseases. This Dr. Szuman regards as a vast stride in the therapeutics of acute anæmia, and its superiority over transfusion of blood. The author enumerates the following advantages. 1. The requisite fluidity can always be ensured. 2. No special apparatus is required; an irrigator, and a cannula or probe-trocar, being always at hand. Exact antiseptic care must be observed with regard to the instruments. 3. The employment of saline solution in cases of acute anæmia must supersede transfusion of blood. The case related by Dr. Szuman is as follows. T. B., aged 15, the son of a labourer, met with an accident from a machine by which he had sustained a compound fracture of the neck of the right humerus with laceration of the joint, together with fractures of the right femur and tibia. When admitted into hospital, he was in a state of collapse; the face, lips, and conjunctivæ all bloodless; he was almost pulseless. Considering the extent of the injuries and the nearness of important vessels and nerves, it was decided that resection of the joint should be performed. Chloroform was very cautiously employed, and antiseptic dressings were applied. To counteract the collapse artificial respiration was practised, the head was lowered, and injections of ether were administered, with the successful result of rallying the patient. On the next day he was very feeble, and rejected food; the lips were blanched. Forty-eight hours afterwards, vomiting became frequent. Whilst the dressings were being changed, convulsive twitchings came on, which increased, and the patient became unconscious. The patient was apparently dying from cerebral anæmia. The injections of ether were repeated, the head and chest were lowered, the limbs were chafed with camphorated spirit, the sound limbs were bound with elastic bandages. Saline solution was then injected into the veins. Six grammes of common salt and one gramme of carbonate of soda were dissolved in one thousand grammes of distilled water. No transfusion-apparatus being at hand, a carbolic disinfectant was employed, a small drainage-tube affixed to a fine trocar, which was inserted into the median vein, the cannula being fixed in the vein, and the fluid injected until about 250 grammes had entered the circulation, when the patient opened his eyes, the spasms ceased, and he answered questions. When about 760 grammes had been injected the pulse fell from 144 to 112, and the patient began to complain of a sense of coldness. The injection was therefore discontinued, and the ligature was removed from the vein. Improvement was steady and recovery ultimately complete.

1047. *Maschka on the Action of Extract of Calabar Bean in Diarrhæa.*—Dr. Maschka, of Carlsbad

(*Berliner Klin. Wochens.*, April 9), has found this extract of great service in intestinal catarrh, diarrhoea, atony of the alimentary canal, &c., and explains his views of its mode of action. The physiological action of Calabar bean, Dr. Maschka states, is upon the muscular coat of the intestines, producing contraction thereof. In acute catarrh of the intestines, it controls the hyperæmia of the mucous membrane, and arrests the excessive secretion. Under its continued use the calibre of the intestine becomes narrow, while its contents are held back or only partially expelled. In cases of habitual atony of the muscular coat, it produces a normal evacuation of the contents of the bowels. Dr. Maschka gives it the preference over preparations of opium, as its continued use does not produce the injurious effects of the latter. Although the author has not much experience of the use of this drug with children, he argues *à priori* that it has a great advantage over opium in their case, as being free from the dangers that attend the administration of opium to children.

1048. *Delbastaillé on the Use of Perosmic Acid as a Subcutaneous Injection.*—M. O. Delbastaillé (*Centr. bl. für die Med. Wiss.*, March 31) has met with success from the injection of a 1 per cent. solution of perosmic acid in sarcomata, lymphomata, strumous enlarged glands, and also cancerous glands. Three minims daily were employed. This injection had the advantage in a case of lymphoma, that, whilst it caused the shrinking of the tumour, it exerted no effect upon the surrounding textures.

W. B. KESTEVEN, M.D.

1049. *Kaulich on the Treatment of Diphtheria by Corrosive Sublimate.*—Kaulich (*Bulletin Gén. de Thérap.*, April 15), acting on the theory that diphtheria is due to an organism, selects corrosive sublimate as the best germicide to treat this disease. He washes the false membranes of the mouth, nose, and throat with a $\frac{2}{10}$ to $\frac{1}{10}$ per cent. solution. In children who had undergone tracheotomy, the trachea was washed with the same solution. The application was made four times a day, or sometimes even every two hours. Inhalations of a solution of only .005 per 1,000 were used for fifteen minutes every hour or at more extended intervals. Internally, he administers to children from 1 to 2 centigrammes (= about $\frac{1}{16}$ to $\frac{1}{8}$ grain) of the drug daily in albuminous water to which a little cognac and sugar has been added.

K. W. MILLICAN.

1050. *Filipovitch on the Antiseptic Action of Trichloracetic Acid.*—In a preliminary note in the *Vratch*, 1883, No. 16, p. 242, Dr. V. Filipovitch states that, when using trichloracetic acid ($C_3H_2Cl_3O_2$) as a test for albumen, he observed that specimens of urine treated in this way did not undergo any decomposition, even after standing for many days. This induced him to undertake some experiments with urine, beef-extract, hay-infusion, &c., which proved that trichloracetic acid possesses antiseptic properties even in relatively small amounts: thus $\frac{1}{4}$ per cent. of the drug protects fluid from the development of schizomycetes (though it permits mould fungi to grow); 2 per cent. solutions arrest every sign of organic life for some months.

V. IDELSON, M.D.

1051. *Bombin on Resorcin as a Local Application.*—Dr. Bombin (*El Sentido Católico*, April 22) has made extensive trials of resorcin, oxyphenol, diatomic carboic acid ($C_2H_2O_4$) as a local application. He uses the drug in the form of alcoholic

solutions of different proportions. The first, of equal parts of resorcin and alcohol, has a distinctly caustic action; the second, of one part of the acid to ten of alcohol, and the third of one to twenty, are stimulant and antiseptic. A one per cent. solution is found to perfectly prevent decomposition. In obstinate syphilitic ulceration, Dr. Bombin first cauterises the surface of the sore with the 100 per cent. solution, and then applies the 10 per cent. solution night and morning till the eschars are separated, and afterwards the 5 per cent. one till cicatrization is complete. He speaks most highly of his success in cases which had been before very intractable. As a local application, he has had very good results in orchitis and epididymitis with a 6 per cent. solution, and uses a 1·5 or 2 per cent. solution with good effect to wash out the bladder, but he considers that it acts in the latter cases simply as a local disinfectant. Moreover, he has not found that, taken internally, it has any curative action in such cases, as has been stated, and similar indecisive results followed its internal administration in cases of strumous glandular affections. In epithelioma of the cervix uteri, its local action does not seem to differ at all from that of carbolic acid; taken internally in large doses, the drug appeared to exercise a certain arresting influence on the spread of the disease, and there was some attempt at cicatrization. On the whole, it is plain that in Dr. Bombin's opinion resorcin is a very valuable local application for chronic tertiary ulcerations, exerting on them a distinct curative action, but that the value of the drug when taken internally is doubtful, and that, as a local application, in most cases it is not superior to carbolic acid as a disinfectant, save that it has less smell, and is more soluble in water, ether, and alcohol. [For an account of resorcin and its allies, see *British Medical Journal*, Vol. ii., p. 944.—*Rep.*]

WALTER PVE.

1052. *Bozzolo on the Action of Iodoform in Diabetes Mellitus.*—Researches made in the clinic of Prof. Bozzolo in two cases of diabetes proved that iodoform in elevated doses of 1 to 2 grammes diminishes the elimination of sugar and the quantity of urine; it lessens the number of the red corpuscles and the hæmoglobin, and diminishes the arterial tension. Bozzolo insists on the fact of the antagonistic action between iodoform and glucose on the organism. The first lowers the arterial tension and generally lessens the quantity of urine. Glucose augments the arterial tension (Albertoni) and the quantity of urine.

1053. *Sennola on the Use of Glycerine in Acute Fevers.*—Sennola recommends the following drink in acute fevers: Glycerine, 30 grammes (3j.); citric or tartaric acid, 2 grammes (gr. 30); water, 5 av. grammes (1 lb.); 20 to 30 grammes (5v to 3j.), to be taken every hour. Glycerine is useful as a combustible aliment, and serves to prevent the waste of the body. With this scope it is more convenient than alcohol, which is to be feared from its exciting action on the brain.

1054. *Scarpari on Parenchymatous Injections of Tincture of Iodine in some Forms of Bronchocele.*—This treatment is applicable in bronchocele from simple hypertrophy of the thyroid gland, and in the cystic and colloid forms. All other forms necessitate surgical treatment. Scarpari (*Gazz. Med. Ital. Prov. Venete*) gives the history of eight cases treated by parenchymatous injections of tincture of iodine. The strong tincture should be used. Ten to fifteen

drops should be tried first. The tumour being held fast, the needle of the hypodermic syringe should be pushed into the substance of the gland, taking care to avoid the superficial veins. On withdrawing the needle the puncture should be compressed with the finger, to prevent bleeding or escape of the tincture, then covered with a bit of plaster, and a wet bandage put on. This treatment never caused any untoward symptoms, either of inflammation or hæmorrhage; and Scarpari has injected as much as 100 drops at one time. The injection should be repeated daily in increasing doses for fifteen or twenty days. The gland becomes harder, and it is more difficult to introduce the fluid. In a month or thereabouts, large goitres disappear entirely.

G. D'ARCY ADAMS, M.D.

1055. *Cook on the Influence of Drugs on the Excretion of Urea and Uric Acid.*—Mr. E. A. Cook, in the *Brit. Med. Jour.*, May 1883, p. 857, records some experiments on the excretion of urea and uric acid. The first mentioned is the influence of a close atmosphere on the excretion of uric acid, where it is shown that the effect of such was to produce a large increase in the amount of urea excreted and a still larger excess of uric acid. The influence of extract of meat on the excretion of uric acid and urea was also tried, and resulted in showing that half an ounce of Liebig's extract of meat increased the quantity of uric acid in a marked degree. The author refers to an article in the *Practitioner*, November 1881, by Dr. R. Neale, where the composition of beef-tea is shown to be analogous to that of urine. Further experiments were made on the action of spirit of nitrous ether, which resulted in the author stating that nitrous ether is in no sense a diuretic by itself, nor a diaphoretic, and that it has a tendency to increase the amount of uric acid eliminated.

1056. *Bradbury on a Case of Diabetes treated with Codeia.*—Dr. Bradbury, in the *Brit. Med. Jour.*, May 1883, p. 864, details a case which he brought before the Cambridge Medical Society, of a man aged 69, who had been passing an excessive quantity of urine for about two and a half years. He suffered from darting pains in the limbs and giddiness; there were also signs of cataract in both eyes. Patellar reflex was absent. The specific gravity of urine was 1.037, with a large quantity of sugar in it. Half a grain of codeia was given daily, and in seven days the daily average of urine was reduced from 52 to 48 ounces. The dose was then increased to a grain, and the quantity came down to 45 ounces in ten days. For the next six weeks the dose was increased to 1½ grain, and the urine was reduced to 40 ounces; then 2 grains were given daily, bringing the quantity of urine down to 33 ounces. The pains were much less violent, the sight improved slightly, but the gait did not improve. In the discussion which followed, Dr. Bradbury said that a close relationship might exist between gout and glycosuria, and these cases usually ran a somewhat protracted course quite different from the diabetes occurring in young persons in whom there was no gouty history. [That codeia possesses undoubted powers in the treatment of many cases of diabetes, a reference to section 341 of the *Medical Digest* abundantly proves.—*Rep.*]

1057. *Phillips on Exophthalmic Goitre Treated with Duboisinia.*—Dr. Phillips, in the *Brit. Med. Jour.*, May 1883, p. 958, notes the case of a woman, aged 39, who had a large goitre, exophthalmos,

much palpitation, a systolic bruit in the pulmonary area, and oedema of the legs. She was ordered $\frac{1}{120}$ grain of duboisinia sulphate three times a day. The treatment was continued for more than four months, and the patient improved considerably. There was still some palpitation, only a very little prominence of the eyes, but her nervous system was greatly improved. She, however, was troubled with some relaxation of the bowels, and complained that the medicine made her tipsy and sleepy.

1058. *Brown on Paraldehyde.*—Mr. John Brown, in the *Brit. Med. Jour.*, p. 956, gives a short note on his experience in the use of paraldehyde. The dose as a hypnotic is from 30 to 50 minims. It produces sleep in a few minutes after taking it, the effect lasting from three to seven hours. It produces no headache, no constipation, nor gastric derangement. In one case, it caused a slightly depressant effect on the heart. If the patient were disturbed during the sleep, the tendency to sleep left. In some cases it causes a peculiar burning taste in the mouth the following morning; the breath smells of the drug for some hours. It is not superior to chloral in its action, it costs ten times as much, and requires a larger dose. It is almost insoluble in water, and makes rather a large draught. There does not seem much probability of its coming into general use.

1059. *Sanctuary on Nitrite of Amyl in Uremic Asthma.*—Dr. Sanctuary, in the *Brit. Med. Jour.*, May 1883, p. 956, refers to a note of Dr. Sheen's in the *Journal* for April 28, and mentions a case where he was called in to see a patient who for a long time had been the subject of gout, chronic Bright's disease, and albuminuria, with occasional attacks of asthma and pulmonary oedema. On one occasion, when suffering from a severe attack of asthma, Dr. Sanctuary made the patient inhale nitrite of amyl, from which he obtained great relief for many days; he died, however, shortly afterwards from a sudden attack of asthma; being alone, he was unable to reach the nitrite, or his life might have been prolonged.

1060. *Granville on Habitual Constipation.*—Dr. Mortimer Granville, in the *Brit. Med. Jour.*, May 1883, p. 1,001, gives three prescriptions for cases of habitual constipation. Where there is a lax and torpid condition of the muscular coat of the intestine, the following is recommended: \mathcal{R} sodæ valerianatis, gr. xxxvj.; tinct. nuc. vom., \mathcal{J} j.; tinct. capsici, \mathfrak{m} xlviij.; syrupi aurantii, \mathcal{J} ss.; aq. ad \mathcal{Z} vj.; \mathcal{Z} ss. in water half an hour before meals. Where there is a deficiency of glandular secretion throughout the intestine the following is useful: \mathcal{R} Aluminis, \mathcal{Z} ij.; tinct. quassie, \mathcal{Z} j.; infusi quassie, ad \mathcal{Z} viii.; \mathcal{Z} j. after meals. A third form of constipation, which depends chiefly on interruption of the natural habit of periodic discharge, is benefited by directing a regular attempt to go to stool, and to take the following draught the first thing after rising from bed. Ammon. carb., \mathcal{Z} j.; tinct. valerianæ, \mathcal{Z} j.; aq. camph. ad \mathcal{Z} j.; take a sixth part as directed.

1061. *Brown on Cannabis Indica in Menorrhagia.*—Mr. John Brown, in the *Brit. Med. Jour.*, May 1883, p. 1,002, confirms in some particulars, Dr. Oliver's experience on the use of cannabis Indica. It requires careful usage, as in small doses marked physiological results may be produced. Five minims is the largest dose that should be given at first. In cases of menorrhagia its action is most marked, but its *modus operandi* is not explained. The following prescription is recommended: \mathcal{R} Tinct. cannabis

Indicæ Mxxx., pulv. tragac. co. ʒj., spirit. chlorof. ʒj., aq. ad ʒvj. A sixth part to be taken every three hours. A few doses are sufficient to produce a marked effect. [The vast value of cannabis Indica in menorrhagia has been long known. In 1856, the reviewer of Dr. West's work drew attention to the fact; and Dr. Silver, in the *Medical Times and Gazette*, July 1870, gives a series of cases illustrative of its efficiency. Vide 'Medical Digest,' section 1149: 5.—*Rep.*]

1062 *Hassall on Antiseptic Inhalations in Phthisis and other Lung-Diseases*.—Dr. A. Hill Hassall, in the *Lancet*, May 1883, p. 765, communicates a series of experiments which he made with a view to test the efficacy of antiseptic inhalation in cases of phthisis and other diseases of the lungs. With reference to phenol, commonly known as carbolic acid, experiments showed that at ordinary temperatures the volatility of phenol is extremely slight, and that the quantity inhaled was far too small to exercise any marked effect in the alleviation of phthisis. Creasote is slightly more volatile than phenol, but the quantity inhaled is small, as in the case of phenol. With thymol, the conclusions arrived at were much the same. The last antiseptic of which trial was made was iodine. In iodine we have really a volatile agent, and it might be presumed that it made its way into the lungs; but experiment showed that it is changed by the saliva and mucus of the mouth and throat into an iodide, whereby it loses entirely its antiseptic properties. The fact of iodine being changed into an iodide also shows how useless it is to administer free iodine as a medicine. Dr. Hassall is continuing his observations, but has so far come to the conclusion that the most practical method of accomplishing antiseptic inhalation satisfactorily is by means of an inhalation chamber. Such a chamber is to be constructed at San Remo, so as to be ready for the use of patients during the ensuing winter.

1063 *Williams on the Treatment of Diabetes Insipidus by Ergot*.—Mr. Hammond Williams, in the *Lancet*, May 1883, gives a few notes on two cases of diabetes insipidus which he treated with large doses of ergot. In one case, two drachms of the fluid extract of ergot were given three times a day, together with digitalis. Under this treatment, in three weeks the quantity of urine excreted fell from 280 to 140 ounces per day, and in another month to 80 ounces. In the second case, the daily quantity of urine was reduced from 300 ounces to 70 ounces in twelve weeks.—[Since Dr. Murrell recommended a trial of this drug in the *Brit. Med. Jour.*, May 1880, p. 693, several observers have spoken in its favour.—Vide *Lancet*, May 1882, p. 686; *Med. Times and Gaz.*, April 1882, p. 296. Dr. Carter failed to derive any benefit from its use.—Vide *Med. Times and Gaz.*, Dec. 1882, p. 755.—*Rep.*]

1064 *Allbutt, Edisson, and Charlton on Chorea Treated with Large Doses of Succus Conii*.—In the *Lancet*, May 1883, p. 905, notes are given on three cases of chorea treated at Leeds General Infirmary with large doses of succus conii. The first case, a lad aged 16, was given half an ounce of the succus conii every three hours, but it was not continued for more than three days: he was then put on the solution of arsenic (twelve minims three times a day), and was discharged much improved in a few weeks. The second case occurred in a girl aged 19, in whom nothing seemed to quiet the movements, except half-ounce doses of the succus given at

intervals of four hours, and afterwards three times a day. The third case, a woman aged 22, improved rapidly when the dose was increased to half an ounce every two hours. These cases tend to show that if we wish to secure success from the use of succus conii, we must give it in large doses, and to maintain its action the dose must be repeated at short intervals. The uncertainty of the action of various specimens of the succus necessitates its very careful administration.—Vide *Medical Digest*, Section 1295: 2.

1065 *Hay on the Chemical Nature and Physiological Action of Nitro-Glycerine*.—Dr. Matthew Hay, in the *Practitioner*, June 1883, contributes a paper on the physiological action of nitro-glycerine from a consideration of its chemical characters. In its relations to the organism this substance behaves in a manner exceedingly like that of a nitrite; there is a remarkable resemblance between the action of nitro-glycerine, nitrite of potassium, and nitrite of amyl. They all differ, however, in the intensity of their action. About 1 minim of a 1 per cent. alcoholic solution of nitro-glycerine has the same action as 3 grains of nitrite of sodium on the pulse. Tracings are given of the pulse-wave under the influence of the respective drugs, and a third tracing is given showing the effect of a further dose of 6 grains of nitrite of sodium; the curve produced demonstrates extremely well the characteristic pulse of nitrite of amyl. Having shown that the physiological and therapeutical action of nitro-glycerine, nitrite of potassium, and nitrite of amyl, is apparently the same for each, the suggestion occurs that they contain some substance in common to whose presence their characteristic action is due. Nitrous acid is common to nitrite of potassium and nitrite of amyl, and by decomposing nitro-glycerine with potash, Dr. Hay obtained abundant evidence of the presence of nitrous acid, and by a careful series of experiments he found that, in the course of the decomposition of nitro-glycerine by an alkali, two-thirds of its nitric acid are reduced to nitrous acid and unite with the alkali to form a nitrite, whilst the remaining third is set free without reduction, and forms nitrate of potash. Continuing his investigations further, the author showed how the alkaline constituents of the blood and other alkaline fluids of the body were able to produce this decomposition; and again, that not only is nitro-glycerine decomposed by the blood with the formation of nitrous acid, but the nitrous acid is used up by the blood for the oxidation of some of its constituents, especially of its hæmoglobin, and in the same manner apparently as a nitrite oxidises the blood. Nitro-glycerine is not changed by the acids of the stomach as a nitrite is, and therefore acts more powerfully.

1066 *Brannigan on Prolonged Suspended Animation, due to Atropia injected Hypodermically*.—Dr. Brannigan, in the *Med. Times and Gaz.*, May 1883, p. 581, reports a case of prolonged suspended animation occurring in a man who came to him in a state of incipient delirium tremens, and to whom he gave a hypodermic injection of four minims of Squire's solution of morphia and atropine. This was administered at 3 P.M.; and at 6.45 P.M., Dr. Brannigan found his patient quite senseless, the face livid, jaws clenched, and pupils widely dilated. There were no signs of respiration or pulse, and the man seemed quite dead. Whilst waiting for a magneto-electric battery, artificial respiration was carried on, and at a quarter past seven, the battery was applied over the

left phrenic and pneumogastric nerves. At 8.15 P.M. the heart began to beat feebly, and in a few seconds there was a slight shallow inspiration. At 8.30 the pulse was 120, and the respirations one to the minute. It was then decided to inject ten minims of liquor ammoniac fortior into muscles of the thigh; this in a short time increased the respirations to 7 per minute. At 9.30 P.M. the respirations were nine per minute, at 10.30 the patient remained much the same, but at 1 A.M. he opened his eyes, and was conscious of those around him. The patient was ill for many days, and had a severe attack of delirium with high temperature, making it possible that he was suffering from some fever, especially as servants of the patient had typhus fever just about this time.

1067. *Alexander on Prolonged Suspension of Vitality due to Atrophia Injected Hypodermically.*—Dr. Alexander, in the *Med. Times and Gazette*, May 1883, p. 582, reports a case of a woman, aged 37, who had been operated on for an enlargement of the left ovary. At noon, four days after the operation, she became very excited, and disturbed the dressings of the wound, so 12 minims of the hospital solution of morphia and atropine were injected. This represented $\frac{3}{8}$ grain of morphia and $\frac{1}{4}$ grain of atropine. At one o'clock she became livid, and a nurse injected another 5 minims of solution before the house-surgeon arrived. When he came he injected ammonia, gave brandy-enemata, used artificial respiration, and applied electricity without effect. At 4 P.M. the nurse was laying the woman out, but Dr. Alexander came in and determined to proceed with artificial respiration, galvanism, frictions. Up to 5.30 P.M. only a spasmodic breath every quarter of an hour and a feeble beat of the pulse every now and then could be detected. At 7 P.M. a nurse poured some coffee into the patient's mouth, and she suddenly fell back as if dead, but by turning her over on her side she was made to vomit. By nine o'clock the respirations were beginning to be more frequent, and the pulse stronger; she soon became conscious after this, and recovered perfectly. RICHARD NEALE, M.D.

1068. *Nelson on Veratrum Viride in Typhoid Fever.*—Dr. A. W. Nelson publishes the results of his treatment of typhoid fever by small repeated doses of veratrum viride (*Archives of Medicine*, April 1883). He has administered this drug in every case of the disease occurring in his practice during the past decade, and has not lost a case. He states that under its influence the pulse and temperature are lowered and held within the limits of safety, the danger of intestinal hemorrhage is reduced to a minimum, and convalescence is not unfrequently established at the end of the second week. The dose given was one or two drops of the official tincture every hour.

OBSTETRICS AND GYNÆCOLOGY.

RECENT PAPERS.

1069. ALLOWAY.—On the Treatment of Puerperal Septicæmia. (*Canada Medical Record*, 1883.)

1070. LEBERT.—Bromide of Ethyl during Labour. (*Lyon Medical*, 1883.)

1071. RICHARDSON.—Post Mortem Examination in Porro's Operation. (*American Journal of Medical Sciences*, January 1881.)

1072. KÜSTNER.—Cystitis in Women. (*Deutsche Med. Wochenschr.*, May 16.)

1073. TOLOCHINOFF, N. F.—On a Case of Central Rupture of the Perinæum. (*Pratch*, 1882, No. 25, pp. 403-4.)

1074. KRASSOWSKI, A. T.—On a Case of Extra-uterine Pregnancy interrupted in the Fourth Month by means of Puncture through the Vagina. (*Pratch*, 1882, No. 24, pp. 387-8.)

1075. WILSON, H. P. C.—A Case of Hysterectomy with a New Clamp, for the Removal of Large Uterine Tumours. (*Amer. Jour. of Obstet.*, April 1883.)

ART. 1069. *Alloway on Treatment of Puerperal Septicæmia.*—Dr. Alloway has treated three cases of puerperal septicæmia by the introduction into the uterine cavity of iodoform suppositories. He refers to the care and anxiety which such cases give to the medical man, the frequent visits necessary if the ordinary method of repeated intra-uterine injections is followed, as in general practice the assistance obtained is rarely skilled enough for this. The advantages of iodoform in general surgery were now fully recognised, and it occurred to him that they might be extended to the treatment of the raw placental surface, and to the lacerations and bruises of the passages. The site of a separated placenta had been well compared to the stump of a limb after amputation. With this remedy there were not only the advantages of a topical action, but, applied in the manner directed, the effect was continuous, and the vapour, or whatever it was, given off permeated to all parts. Too often with injections the superficial parts were cleansed, and in an hour or so, unless repeated, the discharges were again fetid. Dr. Alloway believes that with iodoform the intra-uterine cavity could be more effectually disinfected in these cases than with the ordinary solutions, and that the trouble of constant injections was completely obviated. The author refers to the current views on septicæmia, particularly to the formation of a virus by the bacteria in the decomposing discharges, and suggests that if, as Binz has shown, the iodoform controls the activity of the protoplasm of the colourless blood-corpuscles, it may do the same with the bacteria. In carrying out the treatment he used a Sims' speculum, washed out the uterus first with plain or carbolised water, and then with a tent-insertor passed the suppository far up into the fundus. He used them of the strength of ten, fifteen, or twenty grains, and usually introduced one night and morning. No poisonous effects had been noted.

1070. *Lebert on Bromide of Ethyl in Midwifery.*—M. Lebert has been extensively administering ethyl bromide during parturition. In cases of natural labour, he states that it is of much value on account of its harmlessness and satisfactory action. It decreases, and finally suppresses, the pains, and at the same time it has no injurious action on the contractile power of the uterus nor on the life of the child. M. Lebert has found that the second stage of labour is considerably shortened under the influence of the drug, and that in this way the necessity for operative manipulations is frequently obviated. Unlike chloroform, the bromide of ethyl in Lebert's experience tends to counteract any disposition to *post partum* hæmorrhage, and to hasten the recovery of the patient in the puerperal state.

1071. *Richardson on a Case of Post Mortem*

Examination in Porro's Operation.—The patient, L. E., was operated upon Sept. 22, 1880, for removal of a living child from the uterus by Caesarian section, as modified by Porro and Müller. The immediate results of the operation were in every way favourable. The child was living and the mother made a speedy recovery. She died in New York city on Feb. 24, 1883, two years and five months after the operation. She had been for two years previously to her death at times an invalid, and was under Dr. Richardson's care for attacks of acute rheumatism and anæmia, to which her life of hardship and exposure as an exhibiting curiosity rendered her peculiarly liable. The more recent symptoms observed in her last illness were nephritic. The *post mortem* examination ten hours after death was made by Drs. Richardson, Satterthwaite, and Hege-man. Inspection of the body showed the long bones of the extremities to be deformed, as in rachitis. General anasarca was present. The cicatrix left by the abdominal incision extended from one inch and a half above the umbilicus to three-quarters of an inch above the symphysis pubis. The cicatrix between the umbilicus and hernia was occupied by a large hernia. The liver was hob-nailed. No adhesions between the cicatrix and subjacent structures could be detected, except at the lower angle of the wound. It was at this point that the stump of the uterus had been fixed, in a manner similar to the disposal of the pedicle in ovariectomy. A fibrous band was found, extending from a depression in the abdominal wall at this point to a body consisting of the remains of the uterus. This body, which occupied nearly the normal position of the cervix uteri, except that it was displaced somewhat anteriorly, presented the following characteristics. The extreme length of the stump was 4.75 centimetres; vertical thickness, 2.5 centimetres; its breadth, 1.5 centimetres. On attempting to pass an uterine probe into the os externum, it was found to enter with difficulty, though the cervical canal was capable of admitting a No. 10 English sound. The mucous membrane was coated with a deposit of white, thick, gelatinous material, and was intact for a distance of 3.5 centimetres. No naked-eye evidences of cicatricial tissue were made out at the amputated extremity of the neck. The superior strait measured in the conjugate diameter 2 inches; transverse diameter, $4\frac{1}{4}$ inches; oblique diameter, $4\frac{1}{4}$ inches. The pelvis was a rachitic one. The sacrum was at its upper part dislocated, and pressed downwards and forwards into the pelvic cavity, while the lower extremity, being held by the ligaments to the ischia and pubic bones, caused a sharp bending forward of the last three vertebrae of the sacrum. This deformity implied abnormal softness and pliability of the bone, at a time when the individual was of sufficient age to either sit or stand erect. The shape of the superior strait was obtusely cordate.

FANCOURT BARNES, M.D.

1072. *Küstner on Cystitis in Women.*—Professor Küstner, of Jena, communicates a paper to the *Deutsche Med. Wochensh.*, May 16, 1883, on the prophylaxis and treatment of cystitis in women. He considers that a great many cases of cystitis are caused by the transfer of septic material by means of the catheter from the vulva into the urethra, and strongly urges that on this account catheterisation should never be carried out by the touch only, but always with the aid of sight. It should also be made a rule to have the vulva carefully cleansed

before the catheter is used. The next important point is to have a perfectly clean instrument; and Professor Küstner considers that impossible with the form generally used. Even when a brush is used to clean it, and it is boiled in water and disinfected with carbolic solution, a surprising amount of material—more or less septic—may be found adhering close to the eye, which the brush cannot reach even when the extremity of the catheter is perforated. Küstner recommends the use of a simple straight glass tube, of the size of an ordinary catheter; the opening which is to be introduced into the bladder being bevelled, so as to make it as large as possible. The curve in the usual female catheter does not correspond to the course of the urethra, which has been found—by vertical sections in the dead body—to be straight, or at the most very slightly S-shaped, never C-shaped, so that the straight tube is quite suitable. Such catheters have been used for months in Professor Küstner's clinic, and no case of vesical catarrh has occurred since their introduction, although some patients after severe operations have been catheterised from twenty to forty times. The bevelled end is ground very smooth indeed, and the slightest chip in the edge must be the sign that a new instrument must be immediately procured. In the treatment of vesical catarrh, the local—the washing out of the bladder—is the best, except in the so-called rheumatic catarrh. The ordinary instruments used for this purpose—whether a double-current catheter, or a T-tube with India-rubber tubing attached—are not sufficient for thorough irrigation and the removal of lumps of mucus, &c. Küstner recommends a glass tube like his catheter, with a funnel at one end, into which a hollow stopper—communicating with the tube of the irrigator—fits, through which the fluid passes. When the bladder is full the stopper is removed, and the fluid escapes; and this may be repeated until one or two litres have passed through the bladder. Küstner used to employ weak carbolic solutions for irrigation; but he now uses only sublimate solution (1 in 5,000), and does not give more than two washings in a day. He has cured severe cases of septic cystitis in two weeks. The funnel and stopper are figured full size in the paper, and they may be obtained from the instrument-maker—Otto Kloppe, Johannisplatz, Jena.

ALICE KER, M.D.

1073. *Tolochinoff on a Case of Central Rupture of the Perineum.*—In the *Vratch*, No. 25, 1882. Professor N. F. Tolochinoff, of Kiev, furnished details of the case of a primipara, aged 20, with extreme narrowness and rigidity of the vaginal entrance, in whom there suddenly occurred a central rupture of the perineum, about the size of a shilling piece. Any further lesion was prevented by lateral incisions into the vaginal opening, and by Ritgen's manipulation—that is, by introduction of two fingers into the rectum, and pushing the foetal head upwards and forwards in the direction of the vaginal orifice. On the ninth day after the labour, the rupture completely healed. The author points out the advantages of Ritgen's method, while he regards Spiegelberg's plan (of using forceps when a rupture began to be formed) as entailing too dangerous loss of most precious time.

1074. *Krassowski on a Case of Extra-uterine Pregnancy.*—Professor A. I. Krassowski records (*Vratch*, 1882, No. 24) an interesting case of extra-uterine pregnancy which he successfully

interrupted by means of paracentesis through the vaginal fornix. The patient, aged 23, had two normal labours. Her third pregnancy was recognised as extra-uterine by Dr. I. F. Smolensky, who based his diagnosis chiefly on the presence of a gradually growing, moderately movable, painless, ovoid tumour felt in the lesser pelvis through the left half of the vaginal fornix as well as through the thin abdominal wall. From the rather enlarged but empty womb, the tumour was separated by an interspace of a finger's breadth. Having been called to the patient, the author confirmed Smolensky's diagnosis. He found also that the swelling consisted of two distinct parts: the anterior (nearest to the abdominal wall) solid, and the posterior soft and fluctuating. The late Professor M. I. Horwitz and Dr. V. N. Etlinger, consulted by the author, agreed with him in regard both to his view of the case (tubo-ovarian pregnancy about the end of the fourth month), and to the urgent necessity of arresting the further course of pregnancy. Accordingly a long curved trocar, as large as a raven's quill, was plunged into the fluctuating part of the tumour. About three and a half ounces of a clean transparent fluid escaped, the last portions being tinged with blood. No untoward symptoms followed, except that, from the third to the tenth day after the operation, there was observed some oozing of dark thick blood from the uterus. A month later, quite normal catamenia appeared. The tumour began to shrink and to become denser, more uneven, and more movable. Two months after the operation its size was only a half of the former bulk. The general state of the patient remains quite satisfactory. Professor Krassowski joins Spiegelberg, Schröder, Frankel, and others in recommending puncture of the ovum in every case of suspected tubal or tubo-ovarian pregnancy.

V. IDELSON, M.D.

1075. *Wilson on a Clamp for the Uterine Pedicle after Hysterectomy*.—Dr. H. P. C. Wilson, Surgeon to the Hospital for the Women of Maryland, contrived a new form of clamp for one case under his care a year ago; he believes that his new clamp will be suitable for all cases of hysterectomy. It consists of two steel crossbars five inches long, oval in shape, and without any angles, made to rest comfortably upon the abdominal walls, across the abdominal incision, so as to support the stump of the tumour which is securely held by an écraseur chain. The upper bar is straight, and the chain plays through it, passing in and out of two apertures. The lower bar forms the arc of a circle, and is also perforated, like the upper bar, to admit the ends of the chain. Two screw-locks fix each end of the chain tightly by means of a key, after the pedicle has been secured, a handle, with the usual contrivance for tightening the chain, being fitted on to the lower border of the lower bar, immediately below the screw-locks when the chain is being adjusted. A single needle, six inches long, is made to transfix the pedicle below the clamp. Dr. Wilson found the chain very manageable. The only case, however, in which he has employed it, was a very severe one, with vesical, mental, and hepatic adhesions: the tumour weighed over fifty pounds, and the patient died on the fourth day after operation. The pedicle was six inches in diameter. It became very fetid in spite of numerous precautions. It seems doubtful that a chain can compress a pedicle as well as the stout wire worked of a Koeberlé's clamp.

ALBAN DORAN.

DERMATOLOGY.

RECENT PAPERS.

1076. VERNEUIL, A., and P. MERKLEN.—Cutaneous Eruptions dependent on Malaria. (*Annales de Dermatologie et de Syphiligraphie*, Vol. iii., No. 11, and Vol. iv., No. 1.)
1077. AUBERT, P.—Axillary Hyperidrosis in Naked Persons. (*Ibid.*, Vol. iii., No. 12.)
1078. BESNIER.—Poisoning by Pyrogallic Acid used in the Treatment of Psoriasis. (*Ibid.*, Vol. iii., No. 12.)
1079. CATTANI.—Resorcin in Cutaneous and Venereal Affections. (*Giornale Ital. delle Mal. Ven. e della Pelle*, 1882, p. 35. Abstract by Jullien, *Ibid.*, Vol. iv., No. 1.)
1080. AUBERT.—On the Treatment of Lupus. (*Ibid.*, Vol. iv., No. 3.)
1081. PETERS.—The Treatment of Leprosy. (*Edin. Med. Jour.*, March 1883.)
1082. KOENER.—A Case of Generalised Sarcoma of the Skin Cured by Subcutaneous Injections of Arsenic. (*Berliner Klin. Wochensh.*, No. 1, 1883.)
1083. PIFFARD.—Psoriasis after Vaccination. (*Jour. of Cutaneous and Venereal Diseases*, Vol. i., No. 4.)
1084. FOX.—Treatment of Lupus Erythematosus. (*Ibid.*, Vol. i., No. 5.)
1085. WOOD.—Psoriasis and other Diseases associated with Vaccination. (*Ibid.*, Vol. i., No. 6.)
1086. ROBINSON.—Erythema Diphtheriticum. (*Ibid.*, Vol. i., No. 7.)
1087. FOX, G. H.—The Treatment of Urticaria. (*Ibid.*, Vol. i., No. 7.)
1088. PURDON, Henry S.—Keloid following Psoriasis. (*Ibid.*, Vol. i., No. 7.)
1089. PICK.—Therapeutic Use of Medicated Gelatine in Skin-Diseases. (*Monatshefte für Praktische Dermatologie*, Vol. ii., No. 2.)
1090. LASSAR.—Salicylic Paste. (*Ibid.*, Vol. ii., No. 4.)
1091. DOUTRELEPONT.—Tubercle-Bacilli in Lupus. (*Ibid.*, Vol. ii., No. 6.)
1092. ANDER.—Resorcin in Anthrax. (*Arzt. Intelligenz-bl.*, Jan. 2, 1883; Abstract, *Ibid.*, Vol. ii., No. 6.)
1093. KAPOSI.—Neroderma Pigmentosum. (*Wiener Med. Jahrb.*, 1882, p. 619.)
1094. NEISSER.—Xeroderma Pigmentosum (Kaposi), Lioderma Essentialis cum Melanosi et Teleangiectasi. (*Viertel. für Derm. und Syphilis*, 1883, 11eft 1.)
1095. MAJOCCHI. Experiments with Croton-Oil in Tinea Tonsurans. (*Congress Ital. Med. Assoc.*, 1882.)
1096. MAJOCCHI.—New Mycological Researches on Area Celsi. (*Ibid.*)
1097. KOENER, H.—Cure of Diffused Sarcoma of the Skin by Subcutaneous Injection of Arsenic. (*Berliner Klin. Wochensh.*, Jan. 8.)
1098. AUFRICHT.—Micrococci in Internal Organs through Inflammation of the Umbilical Vein of a Newly Born Child. (*Centralblatt für die Med. Wiss.*, April 21.)
1099. ALBERT.—Elephantiasis Arabum Treated with Elastic Bandages. (*Wiener. Med. Blätter*, No. 7.)
1100. CZOKOR.—A Peculiar Cutaneous Disease in Birds. (*Wiener Med. Blätter*, March 30.)
1101. JULER.—Palmar Psoriasis. (*Brit. Med. Jour.*, Feb. 1883, p. 392.)

ART. 1076. Verneuil and Merklen on Cutaneous Eruptions dependent on Malaria.—The authors (*Annales de Derm. et de Syph.*, Vol. iii., No. 11, and Vol. iv., No. 1) cite a number of cases reported by different observers, and report cases which came under their own observation, in which urticaria accompanied manifestations of malarial disease. The conclusions at which they have arrived are these. Urticaria not

unfrequently accompanies the attacks of intermittent fever. It appears at the beginning of the hot stage, and disappears with the termination of the paroxysm. After a first attack of febrile urticaria, it is not uncommon to observe a fresh eruption with each attack of fever. Urticaria in intermittent fever is a complication without prognostic value. It accompanies slight as well as malignant cases, but it seems to increase the troubles of digestion and the nerve-disturbance in the cold stage. The eruption in intermitting fever seems to occur most frequently in rheumatic subjects. It may appear in malaria-stricken patients without attacks of fever in the form of masked fever, but simple intermittent urticaria and masked urticaria are generally confounded by authors. They are further of opinion that the urticaria is a direct manifestation of malarial disease, and that it results from the action of the poison on the vaso-motor nerves and on the lymphatic system.

1077. *Aubert on Axillary Hyperidrosis in Naked Persons.*—Few physicians accustomed to examine patients who are stripped can have failed to observe that an abundant hyperidrosis may take place under these conditions in the axillae. Aubert, who has specially studied the matter, concludes that excessive secretion in the axillae in naked persons is an almost constant phenomenon. In about a third of the subjects (men) submitted to observation the excessive secretion went so far as to produce a stream of sweat which flowed from the axilla down the internal surface of the arm and the wall of the thorax, sometimes running to the ground. The chief cause of the phenomenon seems to be the anatomical disposition of this region, which permits the temperature of the axilla to rise, whilst the temperature of the general surface of the body is lowered under the influence of external cold. The mean rise in temperature, measured by the thermometer in twelve experiments, was half a degree (Cent.). Something is also to be set down to the structure of the glands of the part. The mental effect produced on the patient by being stripped and examined may act as a secondary but subsidiary cause.

1078. *Besnier on Poisoning by Pyrogallic Acid used in the Treatment of Psoriasis.*—During the last few years, pyrogallic acid has been much and very successfully employed in the treatment of psoriasis, although the publication by Neisser of a fatal case through absorption has led to a certain caution in its use. Besnier now (*Annales de Derm. et de Syph.*, Vol. iii., No. 12) brings together four cases of absorption of the acid which are known to have occurred, two of them having ended fatally. Two of those cases occurred in the St. Louis Hospital; the other two having been observed by Neisser and Pick. No similar mischance has yet been observed by Kaposi, Neumann, or Auspitz. In all the four cases, the symptoms of poisoning developed suddenly and with great rapidity. In three, the strength used was ten per cent.; in one five per cent. In all of them the disease was of old date, and involved a large portion of the cutaneous surface. For the treatment of poisoning by pyrogallic acid, Besnier recommends repeated subcutaneous injection of ether, alcoholic stimulants, and inhalation of oxygen.

1079. *Cattani on Resorcin in Cutaneous and Venereal Affections.*—Cattani (*Giorn. Ital. delle Mal. Ven. e della Pelle*, 1882, p. 35; abstract by Jullien in *Annales de Derm. et de Syph.*, Vol. iv., No. 1) recommends solutions of resorcin in the treatment of wounds, burns, and scrofulous and

syphilitic ulcerations. The healing effects are strongly shown by its actions on varicose ulcers. Pure resorcin immediately produces a white eschar.

1080. *Aubert on the Treatment of Lupus.*—Aubert (*Annales de Derm. et de Syph.*, Vol. iv., No. 3) relates that at the Hospital l'Antiquaille, at Lyons, the actual cautery is still much resorted to in the treatment of lupus. The author himself prefers to use it when the disease is on parts of the body which are generally covered, or where a little additional size of the cicatrix is not important. He prefers it in such cases because the cure is quick, because it exposes less to relapse, and because the future condition of the cicatrix requires less careful watching. When the disease is on the face, he prefers the treatment by scarification.

1081. *Peters on the Treatment of Leprosy.*—The author (*Edin. Med. Jour.*, March 1883) had treated in India twenty-nine lepers; eighteen men and eleven women. The method consisted in daily frictions with carbolic acid (1 in 40), followed by soap and a warm bath. The ulcers were covered with cotton soaked in an emulsion of one part of gurjun oil in three parts of lime-water, the cotton being kept *in situ* by a bandage. Tubercles and anæsthetic parts were touched daily with cashew nut oil (*anacardium occidentale*) until ulceration was produced. The gurjun oil emulsion was then applied. Five minim doses of chaulmoogra oil were given with five-grain doses of bicarbonate of soda and an ounce of peppermint water, and this mixture was found useful as an alterative and tonic stimulant.

1082. *Köbner on a Case of Generalised Sarcoma of the Skin Cured by Subcutaneous Injections of Arsenic.*—Generalised sarcoma of the skin occurs very rarely. Professor Köbner's patient (*Berlin. Klin. Wochensh.*, 1883, No. 2) was a girl aged 8½. The tumours, which were exceedingly numerous, existed over the whole surface of the body, except the nose and abdomen. The tumours were bluish-red in colour, and mostly of the size of a lentil to a split pea. They were hard, and almost painless on pressure. The larger ones were of the size of a haricot bean. The lymphatic glands were swollen, and the liver and spleen were slightly enlarged. There was no fever, but there was a feeble appetite and generally defective nutrition. The diagnosis was confirmed by an examination of two tumours which were excised for the purpose. The treatment adopted was subcutaneous injection of Fowler's solution of arsenic, diluted with two parts of distilled water to one of the solution. A dose equivalent to 2½ to 4 drops of Fowler's solution was injected daily; and between September 12 and December 9, 8 grammes of Fowler's solution had been injected. It had been necessary occasionally to suspend the injections, so that in three months only fifty injections had been made. From December 10, the dose of Fowler's solution was raised gradually to 9 drops (diluted always in proportion). The result of the arsenical treatment was the gradual dispersion of the tumours, and the diminution of the enlarged lymphatic glands. Pigmented spots existed for some time over the seat of the tumours, and in November (1882) the skin had become pliant and smooth. Only on the legs there were some small papules of lichen pilaris, and a very few similar papules on the arms. All the cicatrices had become pale, and on the limbs in particular a great number had entirely disappeared.

1083. *Piffard on a Case of Psoriasis after Vaccination.*—Piffard exhibited (*Journal of Cutaneous and Venereal Diseases*, Vol. i., No. 4) to the Dermatological Society of New York the photograph of a female, aged 19, who had been vaccinated with bovine virus. Instead of a vesicle, there was a red raised patch. A few weeks later, small points of eruption appeared on various parts of the body, coming first on the backs of the hands and subsequently elsewhere. After twelve months, when she was seen by Dr. Piffard, isolated patches of typical psoriasis were observed on the arms, legs, and hips, most of them from a quarter to three-quarters of an inch in diameter. Dr. Robinson, who was present at the meeting, remarked that at the recent meeting of the American Dermatological Association he had reported a similar case.

1084. *Fox on the Treatment of Lupus Erythematosus.*—Dr. Fox, of New York (*Journal of Cutaneous and Venereal Diseases*, Vol. i., No. 5), recommends the following application as being useful in lupus erythematosus: Chrysarobin, 15 parts; salicylic acid, 10 parts; calamine, 5 parts; ether, 10 parts; flexible collodion, 60 parts.

1085. *Wood on Psoriasis and other Diseases associated with Vaccination.*—Dr. Wood (*Journal of Venereal and Cutaneous Diseases*, Vol. i., No. 6), after relating the histories of two cases, in one of which eczema, and in the other psoriasis, disappeared coincidently with vaccination, relates two others in which psoriasis developed after vaccination. The latter two patients were sisters of the patient (a man, aged 20) who lost his psoriasis after being vaccinated, and therefore presumably belonged to a psoriatic family. They were aged respectively eight and nine years, and had had previously no sign of psoriasis. In the spring of 1882 they were vaccinated with bovine virus of the same stock as that used in the other cases. With the subsidence of the vaccine disease, each one of these girls had an eruption of psoriasis, which has now lasted nearly a year.

1086. *Robinson on Erythema Diphtheriticum.*—Dr. H. Robinson (*Journal of Cutaneous and Venereal Diseases*, Vol. i., No. 7) remarks that erythema may appear on the skin in diphtheria under two conditions; either in the early stages of the disease, or at a later period in some cases of severe blood-poisoning. In the early eruption, sometimes at the commencement of the diphtheria, sometimes as late as the second or third day, a diffuse erythematous rash of variable extent appears upon the skin. It may occupy only a portion of the trunk or extremities, or it may cover the greater part of the body. When appearing as patches of limited extent, it is seen most frequently upon the anterior surface of the thorax or abdomen, though it is frequently present upon the extremities. In colour, the rash is from a bright red to a pale red; the bright scarlet-red of many cases of scarlatina is, however, rarely observed. In some cases the rash is not a diffused erythema, but presents a mottled appearance. The redness easily disappears upon pressure. If the eruption be limited in extent, the patches are of irregular outline, and not perceptibly elevated above the general surface. After the first few hours the eruption usually does not increase in extent; and, after existing twenty-four to forty-eight hours, it disappears, without being followed by desquamation. In a prognostic sense, it has no significance. In

some cases of septic diphtheria, when the blood is poisoned by absorption from the diseased mucous membranes, an erythematous rash appears which presents many of the characteristics of erythema multiforme. It appears only when the diphtheria has already existed a few days, and its presence indicates that the system is more or less profoundly affected by the diphtheritic septæmia. It is observed most frequently upon the extremities, but it may appear upon any part of the body. The eruption commences as pin-head sized or larger erythematous raised spots of a bright red or rose colour, which disappears on pressure. A large number of such spots may make their appearance simultaneously, or within a few hours, on the same or on different parts of the body. They all possess the same characters, are raised above the general surface, are sharply limited, and are of a red colour, which disappears upon pressure. Each spot soon continues to spread peripherally; and generally, after it has reached the size of a 3 cent. piece, becomes depressed or cyanosed, or paler in the centre. There are then successively erythema annulare, gyratum, and figuratum. In every case the eruption is elevated above the general surface, and the margin slopes to the normal skin. It does not itch or burn, and its disappearance is not followed by desquamation. Occasionally it leaves a slight brown pigmentation. In fatal cases, the eruption continues until death. The prognosis in these cases is grave.

1089. *Pick on the Therapeutic Use of Medicated Gelatine in Skin-Diseases.*—Professor Pick (*Monats. für Prakt. Derm.*, Vol. ii., No. 2) has found a solution of gelatine an excellent and convenient medium for the application of certain substances to the skin. A solution of gelatine is prepared, which is solid at the temperature of the human body, and the medicament is incorporated with the solution while it is warm. The gelatine solution is heated before being applied, and is painted over the affected parts whilst it is hot. As it cools, it forms a complete covering for the skin. The formula for chrysarobin-gelatine, which has been found valuable in psoriasis, is: R. Gelatine albae sicca, 50; aquæ dest., 100; solve in balneo aquæ et admisce sub assidua agitatione chrysarobini, 10; miscellam seponere; refrigeratum detur ad chartam ceratam. He has used the same medium as a constituent for salicylic acid, carbolic acid, pyrogallic acid, iodoform, and naphthol. He has most frequently used chrysarobin and pyrogallic gelatine in psoriasis; employing a 10 per cent. chrysarobin gelatine. The patient is first scrubbed with soft soap in a warm bath, and the gelatine is afterwards brushed on the psoriasis patches. After the gelatine has dried, a very small quantity of glycerine is passed over them. In severe cases this procedure is practised every alternate day; in milder cases twice or thrice a week suffices. The whole surface of the body can be treated at once without disadvantage. A 5 to 10 per cent. salicylic gelatine is useful in squamous eczema, and a 10 per cent. salicylic and carbolic gelatine as a palliative in idiopathic pruritus. In the same number of the *Monatshefte*, Dr. Unna and Herr Beiersdorf give tables setting forth a great variety of gelatine combinations, in which nearly all the substances used in the treatment of skin diseases find a place. Herr Beiersdorf (of Hamburg) has worked out the subject in a practical manner, and is ready to supply tablets of medicated gelatine prepared in accurate proportions. Dr. Unna points out that, after the

gelatine solution has hardened on the skin, a light muslin bandage may be applied with advantage.

1090. *Lassar on the Use of Salicylic Paste.*—Lassar (*Monats. für Prakt. Derm.*, Vol. ii., No. 4) recommends a paste for the skin in cases in which ointments are not borne, and more particularly recommends a salicylic paste in eczema. The advantage of the paste over ointment is its porosity. The formula is R Acid salicylic, 2; vaselin, 50; zinci oxid, amyli, aa 25; M.; leniter terendo fiat pasta.

1091. *Doutrelepoint on Tubercle-Bacilli in Lupus.*—Doutrelepoint quotes (*Monats. für Prakt. Derm.*, Vol. ii., No. 6) Demme (*Berlin. Klin. Wochens.*, 1883) to the effect that the latter observer in three cases of lupus had found tubercle-bacilli in lupus tissue in small numbers, partly distributed in the 'giant-cells.' His own observations were made on portions of tissue, excised and specially prepared for the investigation. Seven cases were examined: in five the tissue was taken from the face, in one from the leg, and in one from the mucous membrane of the nose. In all of them bacilli were found.

1092. *Andeer on Treatment of Anthrax by Resorcin.*—Unna (*Monats. für Prakt. Derm.*, Vol. ii., No. 6) gives an abstract of a paper by Andeer, who relates a case of a woman who contracted anthrax after sorting wool and horse-hair. On an inflamed base of the forearm, nine large pustules with papules and vesicles were found. The pus contained anthrax-bacilli. There were no further local affections observed, and although the patient fell ill there was little fever. Vaseline—containing at first 50 and afterwards 70 per cent. of resorcin—was applied, and after three days the diseased condition disappeared. The affected parts desquamated.

1093. *Kaposi on Xeroderma Pigmentosum.*—Kaposi in 1870, in the text-book of skin-diseases of which he was the author, jointly with the late Professor Hebra, described under the name *Xeroderma* a disease of which he had observed two examples. He now (*Wiener Med. Jahrb.*, 1882, p. 619) describes six additional cases of the disease, making in all eight cases, and he proposes to describe it more definitely as *Xeroderma Pigmentosum*. It is a disease of young persons, all the cases hitherto observed having occurred between the age of early childhood and eighteen years. In this sense it seems to be a congenital disease. Twice it occurred in two sisters. The essential features of the disease are pigmented spots intersected with skin free from pigment, a contraction of the surface of the skin, which is thin and not easily drawn up into folds, and teleangiectasis in the unpigmented parts. The face and extensor surfaces of the arms and legs are the parts first and chiefly affected. The tendency to epithelial carcinoma is very strong, which is the more remarkable when the youthful age of the patients is considered.

1094. *Neisser on Xeroderma Pigmentosum.*—Neisser (*Viertelj. für Derm. und Syph.*, 1883, Heft 1) reports a case of xeroderma pigmentosum associated with imbecility and carcinoma. He gives a table of all the cases hitherto published, amounting to twenty-seven in number, and accepts Kaposi's description in all essential particulars. He prefers the term *cum melanosis* to *pigmentosum*, because the pigment is of the melanotic kind, and not the pigment left by blood-extravasation.

G. THIN, M.D.

1095. *Majocchi on Croton-Oil on Tinea Tonsurans.*—Dr. Majocchi (*Congress Ital. Med. Assoc.*), as the result of his experiments, concludes that tinea

tonsurans, by experimental or accidental stimulation can be made to take on the later stage of kerion. The mycelial development of the fungus is the favourable condition for this metamorphosis. If kerion is the product of the mycelial form of the fungus, and if this represents a more perfect and later development of the same fungus, it follows necessarily that kerion must be preceded by another form of trichophytic mycosis, relative to the stage of development in which the fungus is found. Hence the error of those who deny the contagiousness of kerion, because the inoculation of hairs with this has not at once reproduced it in the same form. He shows that this is contrary to clinical observation and micrological fact. This leads him to this other conclusion, that kerion is not reproduced as kerion, but as mycosis tonsurans. He showed a case of kerion of the back of the hand, following tinea circinata, treated with strong sulphur ointment. There is no difference between spontaneous kerion and that produced experimentally by croton-oil or other stimulant.

1096. *Majocchi on New Mycological Researches on Arca Celsi.*—Dr. Majocchi, in an interesting paper read before the General Congress of the Italian Medical Association, begins with the history of the discovery of the fungus by Gruby in 1843; he states that Prof. Manassei, in 1864, demonstrated the cryptogam (microsporon Audouini) to his class. He describes briefly the morphology of the microsporon, and says that it has two kinds of spores: first, large round shining spores 5 μ . (micromillimètres) in diameter; and second, small round spores 2 μ . in diameter. He considers the first to be mother spores, *ascospores*, and the second to be *conidia*. He says that the sections made by him of the skin affected by the area (alopecia areata) have demonstrated for the first time the precise seat of the fungus; he notes the importance of exact knowledge of the seat of the fungus in the hair-follicle, since the spores may infest the walls of the follicle without invading the sheath of the hair, so that the extracted hair may give a negative result to microscopical examination. He asserts that his researches prove the existence of a form of alopecia areata due to parasitism.

G. D'ARCY ADAMS, M.D.

1097. *Köbner on the Cure of a Case of Diffused Sarcoma of the Skin by Subcutaneous Injection of Arsenic.*—Dr. Heinrich Köbner relates (*Berliner Klin. Wochens.*, Jan. 8) the case of a girl, aged 8, who presented a large number of hard nodules of a brownish-red colour, about the size of a split-pea, scattered in various parts of the body and limbs. These were not tender to pressure. One tubercle of a semi-transparent gelatinous aspect was seated on the right ala nasi. The chest, abdomen, and back, were free from nodules. On the thorax were many superficial cicatrices, the result of scalding. A great many of red-coloured nodules were to be seen on the flexor aspect of the upper and lower extremities as also on the hands and feet, excepting the palmar and plantar aspects. In March 1881, she was scalded with hot coffee on the neck, chest, and upper part of the abdomen. In April of the same year these nodules began to make their appearance on the cheek, nose, and extremities. In the following month she took Fowler's solution. The child was not seen again until Sept. 12, when a very great increase in the size and number of these morbid growths had taken place. Two small tumours

were excised from the arm, and showed microscopically the spindle-celled sarcoma of the skin and subcutaneous tissues, intermingled with round cells, fibrous stroma, and dilated vessels. Here and there in the mass would be seen a hair-follicle or a sweat-gland. Freshly diluted Fowler's solution was injected subcutaneously (one part with two of distilled water). From Sept. 12 to Dec. 9, eight grammes of the solution were thus administered in fifty-one injections. Up to this time very little change was observable in the growths. Afterwards a central depression appeared in some; others exhibited a dry firm scab on their surface. From Dec. 10 to Jan. 17, 1882, the dose of the arsenical solution was increased to nine drops, and subsequently to twelve drops. The injection was performed on the glutei or between the spine and the scapula. From the date of Jan. 5 a general shrinking of all the nodules was observed. On Jan. 31 the injections were resumed, and by the end of February discoloured scars were the only trace of these deposits of sarcoma, and up to January of the present year no fresh tumour has made its appearance.

1098. *Aufrecht on Micrococci in the Internal Organs through Inflammation of the Umbilical Vein of a Newly-born Child.*—Dr. Aufrecht of Magdeburg (*Centralbl. für die Med. Wiss.*, April 21) relates that, in a child twelve days old, which had died with jaundice, he found very considerable thickening of the walls of the umbilical vein, from the umbilicus to the liver; the lumen of the vessel was not obliterated, but reduced to the size of a pin, and contained pus. Microscopically, nothing abnormal was seen in other organs. Microscopical sections of 0.02 millimetres were placed for from eight to ten minutes' time in a two per cent. aqueous solution of Bismarck-brown, then rinsed with alcohol, placed on a covering glass, and dried with filtering paper, a drop or two of oil of cloves having been added and then absorbed by filtering paper; the section was then put up in Canada balsam. Sections of liver thus prepared were examined. A great number of the liver-cells were of brown colour, filled with round granules, all of the same size and of a strikingly regular arrangement. They were found numerous outside the liver-cells, but were not arranged in regular figures. The same granules were abundant in the interlobular tissue, but were absent from the intralobular structure. In the spleen, these bodies were but sparingly distributed. They were still more sparse in the kidneys, where they were such within the intercellular tissue of the glomeruli. Considering the author remarks, that these microscopic objects are not seen in acute hepatitis nor carcinoma of the liver; the uniform size of these granules, their linear arrangement, and the readiness with which they took the aniline dye, there can be very little doubt that they were micrococci in connection with inflammation of the umbilical vein. Dr. Aufrecht, however, goes a step further, and endeavours to show a relation between these and other known micrococci, tracing, in the present instance, their introduction by gonorrhœal infection, their passage from the maternal vagina into the umbilical vessels, giving rise to two separate disorders of one and the same organism—viz., gonorrhœa and hepatic disorder, thereby confirming the view that each species of bacteria is not the cause of any one single disease, but that different diseases may be caused by a single variety of bacteria.

W. B. KESTEVEN, M.D.

1099. *Albert on Elephantiasis Arabum, treated by Elastic Bandage.*—At a meeting of the Imperial and Royal Medical Society of Vienna, on Feb. 9 (*Wiener Med. Blätter*, No. 7, 1883), Professor Albert showed a case of elephantiasis Arabum of the leg, which had been treated since Jan. 5 with elastic bandages, and where the circumference had fallen to the following extent:—Under the knee, from 71 centimetres (28 inches) to 20 centimetres (nearly 8 inches); the greatest circumference of the calf, from 85 centimetres (33½ inches) to 32 centimetres (nearly 13 inches); round the ankle, from 83 centimetres (32½ inches) to 29 centimetres (11½ inches). Walking had been rendered much easier, and for the last few days there had been no further diminution in size.

1100. *Czokor on a Peculiar Cutaneous Disease in Birds.*—At a meeting of the Imperial and Royal Medical Society in Vienna, on March 30 (*Wiener Med. Blätter*, April 5), Prof. Czokor made some observations on a kind of pox peculiar to birds, and supposed to be analogous to the human epithelioma contagiosum. It appears in hot countries, such as Italy, in the summer months, and consists in an eruption of papules which affects the parts round the eyes, the ears, and the beak, as also the comb and wattles. At the same time a croupous membrane forms in the mouth, nose, and throat, and the animal dies suffocated. Birds which were inoculated with the contents of the little swellings sickened in the same way as those originally attacked; but the papules, although they became confluent, shrivelled up and healed, and the animals recovered.

ALICE KER, M.D.

1101. *Juler on Palmar Psoriasis.*—Mr. Juler, in the *Brit. Med. Jour.*, Feb. 1883, p. 392, writes in answer to a letter in the *Journal*, Jan. 20, 1883, stating that in all long-standing cases of so-called 'palmar psoriasis,' not syphilitic, the treatment, to be successful, must consist in scrubbing the diseased surfaces with a broad, soft nail-brush, dipped in a solution of green soap and alcohol. Sometimes it may require to be done daily, at other times twice a week. At the same time the bowels must be properly regulated.

RICHARD NEALE, M.D.

PSYCHIATRY.

RECENT PAPERS.

1102. MORSELLI.—Specific Weight of the Brain in the Insane. (*Riv. Sper. di Fren. e di Med. Leg.*, 1882, Fasc. iii.)

1103. AMADEI.—Cranial Capacity in the Insane. (*Ibid.*, 1882, Fasc. iii.)

1104. SCIAMANNA.—Application of the Galvanic Current to the Dura Mater of Man. (*Ibid.*, 1882, Fasc. iii.)

1105. SEPPILLI.—General Paralysis of the Insane in Women. (*Riv. Sper. di Fren. e di Med. Leg.*, Fasc. I, 1883.)

1106. BUCCOLA.—The Time occupied by the Reflex Dilatation of the Pupil in General Paralysis of the Insane, and in other Diseases of the Nervous Centres. (*Ibid.*, Fasc. I, 1883.)

1107. TARELL.—On the Height, Weight, and Relative Rate of Growth of Normal and Feeble-Minded Children. (*Proceedings of the Association of Medical Officers of American Institutions for Idiotic and Feeble-Minded Persons*, Philadelphia, 1883.)

1108. WILBURY, H. B.—Some of the Abnormal Characteristics of Idiocy and the Methods adopted in Obviating them. (*Ibid.*)

1109. KERLIN.—The Epileptic Change and its Appearance among Feeble-Minded Children. (*Ibid.*)

1110. FISH.—The Medical Treatment of Idiots and Imbeciles. (*Ibid.*)

1111. STEWART.—The Industrial Department of the Kenucky Institution for the Education and Training of Feeble-Minded Children. (*Ibid.*)

1112. WILBUR, C. T.—Class-Work of a School-Year at the Illinois Asylum for Feeble-Minded Children. (*Ibid.*)

1113. BANNISTER, H. M.—A Clinical Note on the Propagation of Insanity. (*New York Jour. of Nervous and Mental Disease*, January 1883.)

1114. BURY, JUDSON S.—The Influence of Hereditary Syphilis in the Production of Idiocy or Dementia. (*Brain*, April, 1883.)

1115. DE MONTYEL.—Typhoid Fever in its Relation to Insanity. (*Annales Médico-Psychologiques*, May 1883.)

1116. CAMUSET.—Note on the Actual Predominance of Depression in the Insanity of General Paralysis. (*Ibid.*)

ART. 1102. *Morselli on the Specific Gravity of the Brain in the Insane.*—From an examination of forty-four brains, Professor Morselli (*Riv. Sper. di Fren. e di Med. Leg.*) finds that on the average the insane brain has a higher specific weight than the healthy brain. The greatest density is found in alcoholism and in epilepsy. The chronic forms of insanity show a higher figure than do the acute forms.

1103. *Amadei on the Cranial Capacity of the Insane.* Dr. Amadei (*Riv. Sper. di Fren. e di Med. Leg.*) has examined 475 skulls of persons who died insane. The result of his investigations is that the cubic capacity of the cranium is greater in the insane than in the sane.

1104. *Sciamauna on the Application of the Galvanic Current to the Dura Mater.*—Dr. Sciamauna, of Rome, having a patient with a large aperture in the right parietal bone, seized the opportunity to apply the galvanic current. Two zones were distinguished: one not giving any response to stimulation; the other, when stimulated, giving rise to motor phenomena. After death, it was found that the convulsions experimented upon were the ascending parietal, the ascending frontal, and the superior temporoparietal. The results corresponded pretty closely with those obtained by Ferrier in monkeys.

1105. *Seppilli on General Paralysis of the Insane in Women.*—Neumann denied the very existence of general paralysis in women. But in the present day it is admitted on all hands that women as well as men suffer from the disease; and the chief questions concern the relative frequency in the two sexes and the peculiarities of the affection as observed in women. Dr. Seppilli gives a very interesting account of these various points (*Riv. Sper. di Fren.*, Fasc. 1, 1883). The proportion of cases in the two sexes has been variously estimated by different French authors, from 8 per cent. (Marcé) to 30 per cent. (Foville). The German estimates vary from 1 in 8 (Krafft-Ebing) to 4 in 10 (Schüle). These differences probably arise from the fact that the cases of different observers were drawn from different classes of the community. Thus Regis has recently shown that in agricultural districts general paralysis is only about once and a half more frequent in men than in women, and is very rare in both. On the other hand, in the asylums situated near large cities, and which consequently receive the working classes of the towns, general paralysis is three times more frequent in men than in women, while in both it is relatively common. Finally, in private asylums, which are recruited from the upper classes, the disease occurs about thirteen

times as often in men as in women. All this is in accordance with the well-known fact that, while general paralysis is common enough amongst men of the upper classes, it rarely attacks women of the same rank. According to Verga, there were in the asylums and hospitals of Italy, at the end of 1880, 345 general paralytics out of 9,000 male patients (3.83 per cent.), and 123 out of 8,471 females (1.45 per cent.). In regard to the peculiarities of the disease in the two sexes, it has been held by some authors that general paralysis in women is always characterised by dementia, and one observer (Kornfeld) has stated the opinion that the form of the disease characterised by ideas of grandeur is seen only in men. Dr. Seppilli's experience disproves these views, though it would seem to indicate that the stage of excitement is less intense and of shorter duration in women, and that the mental weakening is greater and shows itself earlier. Dr. Seppilli finds that the weight of the brain is less by one-eighth to one-twelfth than in healthy women of the same age. It is to be regretted, however, that the specific gravity is not also given. Opacity and thickening of the meninges and adhesion of the pia mater to the cortex are frequently seen. In regard to causation, sexual abuses and the menopause are dwelt on as highly important factors. The author has not observed epileptiform attacks in his cases (only four); and apoplectiform attacks (two cases) were quickly followed by death. The duration of the illness was what is usually met with: in one patient about four years; in the other three about two years. Mendel found that the majority (80 per cent.) of general paralytics die within four years, and one-third of them before the end of the second year. The conclusion arrived at is, that the disease may present the same features in all respects in women as in men; that it may run the same course, have the same duration, and be marked by the same pathological changes in the two sexes.

1106. *Buccola on the Reflex Dilatation of the Pupil in General Paralysis.*—It is known that in a healthy person the prick of a pin, in the arm or in the neck for instance, is quickly followed by dilatation of the pupil. It is also known that in tabes dorsalis this reflex phenomenon is very frequently absent. As Moeli has shown, the same absence is often observed in general paralysis. Buccola (*Riv. Sper. di Fren. e di Med. Leg.*, Fasc. 1, 1883) confirms this observation. But his researches on the present occasion are directed to the cases where the reflex dilatation is present. And he finds that in such cases the nervous processes are slower than in health. When the back of the hand is pricked, the reflex dilatation of the pupil is observed in the healthy person in about $\frac{1}{6}$ to $\frac{1}{8}$ of a second; while in general paralytics and in others suffering from organic diseases of the nervous centres, the time taken by the reflex action was from $\frac{1}{9}$ to $\frac{1}{5}$ seconds. [It is interesting to remember that Seppilli rarely found the tendon-reflexes absent in general paralytics; and that, on the contrary, they were frequently exaggerated.—*Rep.*]

WILLIAM R. HUGGARD, M.D.

1107. *Tarbell on the Relative Growth of Normal and of Feeble-minded Children.*—This interesting paper appears in the Proceedings of the Association of Medical Officers of American Institutions for Idiotic and Feeble-minded Persons, Philadelphia, 1883. It being generally supposed that idiots are much smaller than ordinary children, Dr. G. G. Tarbell has weighed

and measured all the idiots in his institution at Boston, and has averaged the weights and heights during each year of life from six to twenty. The results are well shown in a diagram, side by side with those obtained by Dr. H. P. Bowditch from nearly 25,000 observations on normal children in the public schools of Boston. Males are distinguished from females. It is admitted that the numbers of idiots and imbeciles examined are not sufficient to warrant the drawing of definite conclusions as to the average height or weight of such patients in any given year of life; but still the general results are of some value. They indicate—1, that idiotic children in the Boston school throughout their period of growth average about two inches shorter and nine pounds lighter than normal children of the same ages; 2, that the relative rate of growth of the two sexes of idiot children corresponds very nearly to that of the two sexes of normal children, and is subject to the same variations at the age of puberty; 3, that the period of puberty is about two years later in idiots than in normal children. It was found by Dr. Bowditch, in his investigation of normal children, that until the age of 11 or 12 years boys are both taller and heavier than girls of the same age. At this period of life girls begin to grow very rapidly, and for the next two or three years surpass boys of the same age both in height and in weight. Boys then acquire and retain a size superior to that of girls, who have now nearly completed their full growth. Dr. Tarbell's diagram shows well that the time during which idiotic girls are bigger than idiotic boys of the same age is from 14 to 17 years of age; whereas Dr. Bowditch showed that this occurred in normal children between the ages of 11 or 12 and 14 years.

1108. *Wilbur on the Abnormal Characteristics of Idiocy and How to Meet Them.*—This paper follows that just noticed. The mental deficiencies of idiocy are analysed, and various modes of counteracting them by means of special education on a physiological basis are discussed. Special stress is laid upon the advantages of institution life and its bracing atmosphere of associated will-force, which exercises a beneficial influence upon the feeble members of the community. Cases are mentioned in which purely individual instruction of idiots has been well tried: in almost every case the effort proved a failure, even in the hands of intelligent and zealous teachers. The pupil tires of instruction aimed persistently at him alone, his power of attention flags under its monotony, and nothing awakens in him the spirit of emulation or sympathy.

1109. *Kerlin on the Epileptic Change and its Appearance among Feeble-Minded Children.*—This is the next article in the same series. The histories have been examined of 300 idiotic and imbecile children, believed to represent a fair average of such cases, as they appear in Pennsylvania and New Jersey. Twenty-two per cent. are now epileptics; fifty-two per cent. have in their antecedents the history of the epileptoid family of diseases. Only twenty-six per cent. of the cases were uncomplicated by either epilepsy, paralysis, or chorea, and many of these presented other physical infirmities, e.g. defective speech, irregularities of gait, sight, hearing, &c. Only fifteen of the whole three hundred are of sound physical health, and have apparently unimpaired organisms; these are designated imbeciles *pur sang*. Attention is directed to the superficiality of epilepsy as it appears in the

great majority of imbecile children from 5 to 15 years of age; paroxysms are aborted by psychical impressions of the simplest character. Some epileptic imbecile children obey for years the injunction never to have a convulsion during divine service, or at an entertainment. The fits are induced as readily as they are controlled. The following slight causes have produced fits, sometimes in children not previously known to be epileptic: the promise of a carriage-drive, distension of the large bowel by an enema, administration of chloroform, alarm of fire, and cramped position of the hand in trying to write. Several cases are related in illustration of epileptoid conditions and mental epilepsy. Symptoms were noted as indicating epileptic tendencies in cases which developed undoubted epilepsy years afterwards. Other cases are given in which the convulsive attacks have ceased, but their place has been taken by occasional seizures of some different nature, e.g. paroxysmal pain in the stomach, vomiting, mania transitoria, sudden and purposeless running. Many of the cases mentioned might be regarded as examples of eclampsia, or symptomatic convulsions; but the author advocates a common identity or relationship in all convulsive phenomena. He believes that all the conditions mentioned above may be best treated as irregular manifestations of that '*epileptic change*' which has been described as the precursor of, and underlying all, epileptoid states. The identity of temper-displays, paroxysmal thievings, violence, &c., with the epileptic change, is also indicated. This view has the advantage of promoting kindly tolerance and ingenious management of these peculiar cases, and arouses the apprehension that the outcome may be true epilepsy, thus directing the treatment towards averting such a calamity. The cases are numerous in which imbecile children have had convulsions only at the time of the first dentition, but in whom the tendency to such attacks remains: in these patients, epilepsy is often brought on by comparatively slight exciting causes. The neuropathic state of most idiotic children is on the near confines of spasm. The natural convulsibility of infancy persists in the later life of the imbecile; the undeveloped or ill-organised cerebrum of the idiot fails to control automatism, jactitations, and other nervous tricks—habits which foster the development of the epileptic change until a special excitement overrides all restraint, and epilepsy is established. When epilepsy in imbeciles is due to psychical influence or eccentric irritation, treatment may be undertaken with great hopes of success, especially if the family history be good. When, on the contrary, physical influences or several organic changes have brought about the disease, the prognosis is extremely unfavourable.

1110. *Fish on the Medical Treatment of Idiots and Imbeciles.*—In the next paper of the same *Proceedings*, Dr. W. B. Fish, of Elwyn, Pennsylvania, gives the result of his experience on this subject. The following may be noted with advantage. The difficulty of diagnosing physical disease in idiots is of course very great, as the physician must depend upon objective symptoms alone. Phthisis is often developed without cough, expectoration, or night-sweats. Fractures of bones may even occur without any complaint on the part of the patient. The clinical thermometer, the patient's appetite, and frequent weighing of the body, are our safest guides. Even the stethoscope partially

fails, owing to the habitual feebleness and shallowness of these patients' respiration, and their inability to breathe deeply or speak when told to do so. The author believes the oft-repeated statement that the temperature of idiots as a rule is below normal, to be without foundation in fact. The immense advantage to idiots of living in a high temperature is remarked upon. Phthisis is, of course, far more frequent than any other physical disease in idiocy; its course also often appears remarkably rapid, but this may be partly due to the great difficulty of recognising it during its earlier stages. Dr. Fish states that no case of phthisis by infection has occurred in the institution at Elwyn, but it is difficult to see how this can be proved when it is admitted that fresh cases are constantly occurring. Various plans of treatment have been tried, but the great majority of cases appear to derive most advantage from cod-liver oil. This must, of course, be given in small doses at first, always after meals; the quantity may be afterwards increased, and the treatment must be persisted in for a long period. A number of cases of pneumonia were successfully treated by small and frequent doses of aconite in the earliest stage, the iodide and carbonate of ammonia after the occurrence of hepatisation, quinine in full doses at night, whisky in large doses during the period of crisis; dry cups and the jacket-poultice were used when symptoms were believed to indicate them. Diarrhoea is often very troublesome in these patients; two remedies are strongly recommended, the dilute nitro-muriatic acid and the subnitrate of bismuth, according as the symptoms proceed from an alkaline condition of the secretions or from acid fermentation. The subnitrate of bismuth should be given in much larger doses than is usually recommended. For the constipation, so frequent in epileptics, the following pill is recommended—podophyllin, extract of belladonna, extract of nux vomica, of each one-fourth of a grain. One or two should be taken at bedtime, and followed by a freely diluted saline draught in the morning. Mercury, in small and frequent doses, retains its place as an alternative. Catarrhal jaundice has succumbed to drachm-doses of phosphate of soda three times daily. The treatment of epilepsy by the bromides appears to have been largely followed, but no definite results are stated. Nitrite of amyl has not been thoroughly tried, but the author thinks it useful in aborting an epileptic seizure, and that in the status epilepticus it should be used in larger doses than usual, such as 5 to 10 minims. Squibb's hydrobromic acid has been useful in cases, where there has been reason to discontinue the usual bromides for a time; excellent results have followed its use (30 minims thrice daily) in cases of excitable idiocy, accompanied by insomnia and noisy demonstration.

1113. *Bannister on the Propagation of Insanity.*—The purpose of this article, in the January number of the *New York Jour. of Nervous and Mental Disease*, is to draw attention to the relative frequency of the intermarriage of the insane, and of those with hereditary insane tendencies. Considering the comparatively small proportion of insane persons in all populations, it should be a rare thing, according to any ordinary law of chances, for two insane persons to intermarry; but Dr. Bannister's figures show that it is not very uncommon. Of 104 cases with insane heredity in the Illinois State Asylum, at Kankakee, no fewer than four had both father and mother insane. Three others had direct paternal and collateral

maternal heredity; two had direct maternal and collateral paternal heredity, and in one case there was collateral heredity of insanity on both sides. Thus nearly 10 per cent. of those with insane heredity had it on both sides, and were thus favoured with a double opportunity to inherit mental disease. If to these be added the instances where, with insanity in one parent, there is reported either epilepsy, hysteria, drunkenness, 'brain-disease', 'nervousness,' &c., of the other, the ratio of double inheritance rises to over 20 per cent. Some particulars of family histories are given; and other 'plexuses of insane heredity' are mentioned. Three instances occurred in one asylum of husband and wife being patients together. The author does not venture on any explanation of this apparent tendency of persons with hereditary liability to mental disease to select one another for life-mates and thus perpetuate and intensify in their offspring their own unfortunate inheritance. [Persons known to have been insane or to belong to insane families are to a great extent regarded as ineligible for marriage by the rest of the population. The result of this is that, if such persons wish to marry, they are often obliged to marry one another. Those who have been insane themselves, or whose near relatives have been insane, have less fear of insanity in others, and the lower classes generally take little thought as to the chances of their offspring inheriting tendencies to insanity or any other disease.—*Rep.*]

1114. *Bury on Hereditary Syphilis as a Cause of Idiocy or Dementia in Childhood.*—Inherited syphilis has not hitherto been regarded as a frequent cause of idiocy. The well-known signs of congenital syphilis are seldom seen in idiots. Dr. Bury, in the April number of *Brain*, gives reasons and relates cases which seem to indicate that mental failure, coming on in childhood, is not unfrequently due to this cause. From a review of the recorded observations of others, Dr. Bury finds distinct proof afforded by *post mortem* examination that mental failure in childhood may be the result of lesions produced by hereditary syphilis, and also fair evidence that hydrocephalus and other focal brain-changes sometimes result from syphilis, and may lead on to idiocy; but we know nothing of syphilitic idiocy simply from inherited weakness of nerve-elements apart from demonstrable changes which are strictly extraneural. Six unpublished cases are related which bear upon the pathology of hereditary syphilitic dementia. The following considerations are suggested as partially explaining the supposed rarity of this condition. 1. Congenital deficiency of mind from inherited syphilis is probably rarer than mental failure coming on in childhood. 2. The time at which this mental failure shows itself (near the second dentition period) is a time when the manifestations of hereditary syphilis are more or less latent; and if the child have not typical teeth, or some other manifest sign, syphilis is probably not thought of. For the future, in cases of obscure juvenile dementia, all possible indications of specific taint should be looked for; the physiognomy and general growth should be noted; evidence of periostitis in the long bones should be sought; and, most important of all, the fundus of the eye must be examined for *choroiditis disseminata*. Retinitis and optic neuritis should also be sought for. Cases of this kind do not probably very often reach idiot asylums, for the dementia is of an inoffensive type, and yet is not likely to im-

prove under treatment. Good family histories in such cases are also very difficult to obtain. The cases described appear to be examples of intellectual rather than of emotional or of volitional insanity; in all of them the intelligence seems to have developed normally up to from 5 to 9 years of age, and then to have become gradually weakened, or quite destroyed thus bringing about a condition of 'juvenile dementia.' The cases prove that the growth of the brain may be hindered by a thickening of the cranial bones, as a result of syphilitic osteitis in early life; and also by thickened membranes, a chronic meningitis being often started, probably by syphilitic periostitis. They also show that thickening and narrowing of the brain-arteries, beginning usually as an endoarteritis, are probably by far the most important causes of atrophy of the brain. We know already that syphilitic arteritis is met with in young infants, and may lead to complete occlusion in a child a few months old. Atrophy of the large nerve-cells of the convolutions is shown to be sometimes the result of sclerosis of the cortex, set up by some of the morbid processes above mentioned. As regards treatment, it is impossible to restore a brain damaged by syphilitic changes which were active months before the patient came under observation; but by accurate study of these cases it may perhaps become possible to recognise them at an earlier stage, when suitable treatment might be of some avail.

1116. *Camuset on the Frequency of Mental Depression in General Paralysis of the Insane.*—Struck with the comparative rarity of mental exaltation and grandiose delusions in the cases of general paralysis coming under his notice at Vaucluse Asylum, Dr. Camuset gives, in the *Annales Médico-Psychologiques* for May 1883, the result of a careful study of all such cases among the male patients of that asylum from January 1882 to January 1883. The number of cases tabulated is 173. The mental condition was one of simple dementia in 44 cases, it was characterised by depression in 81 cases, and by exaltation in only 39 cases. Nine cases are unclassified, as they were either very rapid and acute, or presented varying symptoms.

C. S. W. COBOLD, M.D.

REVIEWS.

ARTICLE 1117.

Diseases of the Rectum and Anus. By CHARLES B. KELSEY, M.D. Pp. 299. London: Sampson Low, Marston, Searle, & Rivington.

IN pointing out the leading characteristic of Dr. Kelsey's work on the diseases of the rectum, we cannot do better than quote a few lines from the first chapter in which the actions of the levator ani and transversus perinei are successively considered. 'The actions of the levator ani are various. First it acts as a support to the pelvic organs, and antagonises the diaphragm and abdominal muscles when they act upon the abdominal contents. Again, it prevents the rectum from being protruded, and raises the anus and opens it; being in this respect the direct antagonist of the sphincter.'

Evidently, in the above passage, Dr. Kelsey shares the opinion held by a great many anatomists that the levator ani assists defecation by opening the anus. A few lines farther on, however, without any apparent reason, he suddenly adopts the opposite

view, namely, that the levator ani aids the expulsion of feces by pressing the anterior against the posterior wall of the bowel.

'In such a case, the two transversi perinei form a continuous half ring, the concavity of which is directed backwards and embraces the anterior part of the rectum, assisting powerfully in defecation by pressing the anterior against the posterior wall of the bowel in conjunction with the levator ani.'

It sounds harsh to say that Dr. Kelsey has himself probably no opinion whatever on the subject, that he has simply stated what he has read in the works of differing authorities, and that hence the discrepancy has arisen. We repeat, it sounds harsh to say this, yet in no other way can we explain so flat a contradiction.

In the origin of the rectal veins we find M. Duret's views reproduced with literal exactness in the form of a word-for-word rendering of his article in the *Archives Générales de Médecine*.

'Each of these little ascending branches has its origin in a minute pool of blood, the size of which varies in the normal state from that of a grain of wheat to that of a small pea,' is, on the whole, not a bad translation of 'Chacun de ces rameaux ascendants et parallèles a son origine dans une sorte de petit lac sanguin, dans des ampoules ovalaires dont le volume varie, à l'état normal, de la grosseur d'un grain de blé à celle d'un petit pois.'

But in England, it is needless to say, this view, although advanced by Verneuil and Luschka abroad, has never yet obtained, and is not likely in the future to obtain, currency. We in England have somehow adopted the belief that veins begin from capillaries; and it will take something more than the fact that a few investigators have found dilatations near the commencement of the rectal veins to produce any modification in this.

Under the heading Defecation, Dr. Kelsey reviews all that has been written about a third sphincter and the valves of the rectum; inasmuch as this repays the trouble of reading, it is by far the best portion of the first chapter.

The second chapter treats of congenital malformations of the rectum and anus, and is commonplace enough till we reach p. 42, whereon the operation of colotomy is described; here we suddenly alight upon these words:—

'The operation may be modified with advantage by stitching the parietal and visceral layers of the peritoneum together with sutures passing down to the submucous layer of the bowel, but not into its alibre. The wound may then be covered, and the opening into the bowel delayed for six or eight hours for adhesions to occur.'

After very lengthened consideration, we confess ourselves completely unable to understand the above paragraph. Does it mean that when the peritoneum has not been wounded it is a good plan to introduce sutures into it? We would then ask with what object? Or does it mean that the peritoneum is invariably opened, and the 'modification with advantage' may then prevent all the disasters which follow passage of feces into the peritoneal cavity? If this be the case, we protest that so extraordinary a view as that the peritoneum is always wounded in colotomy should have been clearly stated, stated beyond the possibility of a doubt.

In the third chapter are laid down 'general rules regarding examination, diagnosis, and operation.'

On page 56 are depicted two most dangerous looking pointed bougies, such as we hope no surgeon would ever think of introducing up a rectum. It is, however, only fair to Dr. Kelsey to state that he himself much prefers 'the black rubber instrument with the blunt point (fig. 18), which may readily be bent into a circle in the hand, to all others in the market, and the same instrument comes with a sharp point which sometimes answers a good purpose.' He might have added, 'more frequently a bad purpose, such as perforating the bowel.' If Mr. Richard Davy, after great experience with his lever for compressing the common iliac artery through the rectum, had the misfortune to perforate the walls of the gut, surely a writer on rectal surgery might well hesitate before recommending the use of a sharp-pointed bougie.

On pages 63 and 64 are given directions for arresting hæmorrhage; and here Dr. Kelsey strikes out into an original line, for he evidently does not believe either in ligature or in torsion of vessels as a means to this end. The only instructions he gives lead one to suppose that in his practice of rectal surgery he has had the good fortune never yet to have divided a large vessel; for he states that 'a hæmorrhage seldom occurs from the rectum after a surgical operation—so seldom as to be almost unknown—which cannot be controlled by the cautery or by packing the rectum.' We know, of course, that, before Ambrose Paré's time, the actual cautery played an important part in the arrest of hæmorrhage. But we innocently imagined that, since the great French surgeon introduced ligature, this had been found on the whole a more satisfactory mode of dealing with a bleeding vessel. Plugging the rectum is all very well in cases of secondary hæmorrhage, in which ligatures will not hold, or in which bleeding points cannot be detected, but surely no surgeon would think of plugging the rectum when ligature or torsion would suffice.

Chapter V. is devoted to abscess and fistula. Richet's somewhat impractical division of deep abscess into ischio-rectal and pelvi-rectal is here adopted, and the prognosis of the latter is painted in far too sombre colours.

The chapter on hæmorrhoids gives Mr. Allingham's classification of these; only two methods of operating are here described, that by ligature and that by clamp and cautery, while the two most recent modes are not even mentioned. We refer to crushing, introduced by Pollock and improved by Allingham; and to Whitehead's excision. But the blot in this chapter is the omission of the very necessary recommendation that after the removal of the hæmorrhoids, and the healing of the wounds so caused, the surgeon's finger should be introduced from time to time into the gut to prevent its contraction. This is, in our opinion, the most important part of the after-treatment. The next chapter, on prolapse, is, to our thinking, the best in the book, as it gives a lucid account of this affection, an excellent classification, and a few illustrative cases very much to the point; the treatment, too, is given at greater length than is usual with Dr. Kelsey.

Perhaps the most complete paragraph in the book, however, is that on tubercular ulceration in Chapter IX. Still, where completeness is evidently an aim, we should have expected to find some mention of what Féréol, Martineau, and Primet have had to say on this very interesting subject.

Altogether, Dr. Kelsey's book bears evidence of

his not having spared himself any pains in making it as complete as possible. If it here and there lacks the impress of the master hand, it in other places furnishes information gathered by a very careful search among the numerous Paris theses, which can certainly not be found in other works on the rectum.

Whether Dr. Kelsey's treatise is likely to supersede those older works which have already achieved a reputation, does not concern us. Of one thing we are, however, certain; that the work in question is far more likely to be of use to a candidate preparing for the higher surgical examinations, than to a medical man intending to turn his attention especially to the practice of rectal surgery. W. J. ROECKEL.

ARTICLE 1118.

Ringworm: its Diagnosis and Treatment. By ALDER SMITH, M.B., &c. Second edition, pp. 166. London: Lewis. 1882.

THE first edition, which was favourably noticed in this journal two years ago, has been enlarged and partly rewritten; accounts are given of some fresh remedies, some diagnostic points are more clearly put, and three fresh plates are added.

It is to be regretted that the author still finds it necessary to state that 'very few medical men—either in consultation or private practice—are aware how difficult some cases are to cure. The majority consider a case well even when it has assumed a chronic form;' and, again, 'some medical men have no idea what ringworm is like, and when patches are pointed out to them affirm the disease is cured, and the child fit to mix with others' (p. 17); and, again, of small scurfy patches, 'brought under the notice of a medical man, who laughs at the idea of its being ringworm, and advises no notice of it' (p. 20), and so on several times in the course of a few pages. Doubtless there is some basis for the censure, but with all our instruction in skin-disease we ought to be getting a little better now. The first quotation is especially sweeping.

Repetition is perhaps necessary for emphasis. We get it again strongly in the chapters on diagnosis, which is made to depend largely on 'Stumps.' From p. 10 to p. 45 there is scarcely one in which the word does not occur several times over. There is basis for this, too, but it seems curious; and the popular tale in the nursery—'stumps'—irresistibly suggests itself. 'Look for stumps,' find them and you are right; but don't find them and still they may come in a week or two; so constantly look for 'stumps.'

In examining them microscopically, liquor potassæ is recommended for clearing, but we have sometimes found it too strong; it does better with an equal part of glycerin and water.

With the author's account of tinea decalvans or area we quite agree; we can both verify Dr. Living's statement of occasional smooth, bald, shining patches, occurring occasionally in tinea tonsurans, and Fox's statement as to parasitic elements being occasionally found in cases otherwise resembling true area; but these parasitic elements were always of the same kind as tinea tonsurans, and not the special growth that Bazin described; this physician is not even referred to, nor is Malassez, who published a demonstration of the parasite in 1874 (*Archives de Physiologie*).

It is considered settled apparently that both parasitic sycosis and 'eczema marginatum' depend on the same microphyton: but, as to the latter, further evidence is required.

Mr. Alder Smith's name is specially and deservedly identified with the use of croton-oil for small and chronic patches for the production of an artificial kerion, and he gives good and careful direction for its proper application.

The chapters on remedies are also careful and practical; and, if not containing much available new material, they present what is known in convenient form for reference. Neither thymol nor Goa powder is very satisfactory; mercurial oleates and a carbolised mercurial ointment with sulphur 'bear the bell.' Dr. Mac Cormac's name should be mentioned with the former. 'Coster's paste' we have found more painful than is implied. Petroleum ointment we have sometimes found efficient without being disagreeable, and it deserves a mention which it does not receive. It was strongly recommended by Sir Joseph Fayrer (*Medical Times and Gazette*, October 1874).

Altogether the book is a very useful one to have. Written as it is with ample experience of its subject, and detail of treatment, we can only hope that it will do something to remove the ignorance of which it complains, before the next edition is required. E. MACKEY, M.D.

ARTICLE 1119.

Brain-Rest. By LEONARD CORNING, M.D. Pp. 100. New York: Putnam. 1883.

WRITTEN in somewhat grandiloquent style, this treatise embodies truths, on the subject mainly of sleep, with the novelty of recommending graduated mechanical control over the cerebral circulation by means of a 'carotid truss,' i.e. a neck-band with pads, adapted for pressing on both common carotids.

Starting from the demonstrations by Durlham of cerebral anaemia during sleep, supporting them by Hammond's evidence of 'lessened cerebral pressure,' and Naunyn's of the varying relation between spinal subarachnoid fluid and the cerebral spaces, the author concludes that 'the physiological variability of the intracranial circulation must be accepted.' 'As regards the primary impulse . . . which culminates in anaemia . . . he perceives a rudimentary behest in periodic exhaustion of available intraganglionic energy'; this, and 'a physiological degree of cerebral anaemia,' are the two great factors of sleep.

He notes that compression of the carotids more readily produces somnolence towards evening, i.e. after an expenditure of motor and psychic energy, than in early morning, after a period of repose; and he repeats several times his leading ideas as to ganglionic exhaustion and anaemia (of limited extent) causing sleep. *Reduced oxygenation* goes with these, and is indicated by lowered temperature of the head; for registering this the author has a special contrivance.

The results of mechanical compression of the carotid he describes as facial pallor, drooping of the eyelid, dilatation of the pupil, soporific tendency, dizziness, confusion of ideas, syncope, all much more marked in anæmic subjects.

Under hygienics of sleep, he describes very well the 'thought martyrdom, which renders a man not the possessor of thought, but its wretched victim.' Insomnia is classified into idiopathic and symptomatic; over-taxation of the mind, grief, jealousy, &c.,

being main causes of the former; pain, dyspepsia, &c., of the latter.

The symptoms of cerebral exhaustion, hyperæmia and anaemia, are described, and the book concludes with notes as to treatment. Dr. Corning seems to have used his instrument and 'sensibly diminished for the time the lumen of the artery' without serious inconvenience, but he gives no details of cases; also he used pressure still more actively during epileptic convulsions and congestive headache. Internal remedies, however, are not despised; bromide in the day, chloral, henbane, ergot, and others being approved of. The value of baths, and especially of the Turkish bath, in insomnia is justly reckoned to be great. E. MACKEY, M.D.

ARTICLE 1120.

Mechanical Exercise a Means of Cure: a Description of the Zander Institute, London. Edited by the Medical Officer to the Institution. Pp. 92. London: Churchill. 1883.

A NOTICE of this work is really a notice of the system it describes, and, after a careful inspection and personal trial, an observer can have nothing but praise for it. It is one of those forms of aid to medical practice that, under injudicious management, is apt to degenerate into quackery, but, as conducted at Soho Square, it is admirable. Everything is open to medical inspection, a highly qualified colleague is at hand for consultation, and a given case can be jointly watched at intervals.

The ingenuity of the machines is marvellous. They are fifty in number, and classed into A, B, and C series (being for the arms, legs, and trunk respectively), and D 'passive' machines. Either by steam-power or by an arrangement of levers, every joint, almost every muscle, may be equably exercised, and any part may be shampooed or percussed with the greatest nicety of graduation. The movements are calculated to remove pain, stiffness, or even atrophy; to stimulate the capillary circulation, and so improve nutrition, as well as to stimulate and regulate the functions of internal organs, especially the liver and the bowels.

Of the passive machines, that for 'rolling friction of the back' is one of the best—*experto crede*. The patient lies on a sofa, through the back of which two padded wheels roll with regular pressure along both sides of the spine. The motion has a sedative effect on superficial sensitive nerves, and is useful for 'oversensitiveness of spine and pain in back and loins,' i.e. nerve or muscular pain.

Under the 'vibrating machine,' we find the remarkable statement that 'shaking of the back between the shoulder-blades has a specific effect on the action of the heart; it always makes its contraction less frequent and more effective.' Nervous palpitation is much relieved by it, also the symptoms of fatty heart; the pulse may be reduced from 130 to 90. Shaking of the chest and throat is said to facilitate expectoration, and also absorption of effusions.

There should be some relation between these vibrating machines and the one ably introduced by Dr. Mortimer Granville. The physiological and therapeutical effects to be obtained from them are not yet known to the profession at large.

The special classes of cases set down as suitable for the Zander treatment are such as general debility with feeble circulation, contracted chest, rheumatic

pain, stiffness or partial paralysis, sciatica, constipation, and spinal curvatures, and a few illustrative cases are subjoined. One of atony of the colon, with dyspepsia, &c., seems particularly successful.

EDWARD MACKEY, M.D.

ARTICLE 1121.

Critical and Clinical Study of Generalised Exfoliating Dermatitis (Disease of Erasmus Wilson). (*Étude Critique et Clinique sur la Dermatite Exfoliatrice, ou mieux, Maladie d'Erasmus Wilson.*) By Dr. L. BROcq. Paris: 1882.

THIS interesting essay should be read by English dermatologists. The term pityriasis rubra is in England, as Dr. Brocq correctly remarks, made to include several diseases of the skin which differ essentially from each other. One of these affections, which Dr. Brocq believes to be a distinct disease, *Generalised or Exfoliating Dermatitis*, is minutely examined and described in the treatise before us; and, as Erasmus Wilson was the first to call attention to it, he proposes to diminish the confusion that envelops this affection by naming it after the English dermatologist.

The disease may relapse several times; it frequently results in cure, but is occasionally fatal. It is always a tedious and severe malady. It differs from acute exacerbations of previously existing inflammatory skin-diseases by its typical development, and by the loss of the hairs and nails, and the constitutional symptoms; from the true pityriasis rubra (Vidal) and from pityriasis rubra pilaris by the same characters; from relapsing roseolar erythema and from the pityriasis rubra of Hebra by its duration.

In the historical part of his essay, Dr. Brocq has done good service to dermatology, and has done much to lessen the labours of physicians who occupy themselves with endeavouring to unravel the tangled skein in which exfoliating diseases of the epidermis has been bound by authors.

G. THIN, M.D.

ARTICLE 1122.

Epitome of Skin-Diseases, with Formulae; for Students and Practitioners. By the late TILBURY FOX, M.D., F.R.C.P., and T. COLCOTT FOX, M.B. Third Edition by T. COLCOTT FOX, B.A. (Cantab.), M.B. (Lond.). Renshaw, 1883.

WE are glad to welcome the third edition of this admirable little handbook, which is so well known that we need say little more than that Dr. Colcott Fox has slightly enlarged the book in order to bring it up to the knowledge of the day. The epitome was originally planned and written by Dr. Colcott Fox in conjunction with his brother the late Dr. Tilbury Fox, whose lamented death left so great a gap in the field of study to which he specially devoted himself. The editor of the present edition has done wisely in expanding the article on the syphilitic lesions of the skin, and especially in discussing somewhat fully the subject of infantile syphilis. We know of no other text-book where the recent great advances in our knowledge in this direction are equally fully and sufficiently given. We may specify also the articles on tania, on scleroderma, on morphea, and on medicinal eruptions, as containing much new and valuable matter, and that on leprosy as affording in a short space a very complete picture of the disease in its several forms. DAWSON WILLIAMS, M.D.

ARTICLE 1123.

Pathologie des Poissons. Traité des Maladies, des Monstruosités, et des Anomalies des Œufs et des Embryons. Par MICHEL GIRDWOYN, Membre des Sociétés d'Insectologie de Paris, de la Gironde, &c. Paris: Rothschild.

M. GIRDWOYN has written a very interesting book on the diseases of fishes, from which it appears that adult fishes are very healthy animals. Trout are subject to anaemia, apparently of a pernicious type; wounded fishes, as all who keep aquaria are aware, are very subject to the growth of vegetable parasites on their wounds, a disease almost invariably fatal. M. Girdwoyn makes some interesting observations on diseases of the reproductive organs in salmon and trout. Inflammation of the ovary is not rare; when it is general, the ova all die and undergo septic changes; when it is localised, the ova from the unaffected part of the ovary are laid, bloody fluid escaping from the vent of the diseased fish during the process of expulsion of the ova. The male special gland is subject to similar inflammatory changes. Stagnation of water appears to be the exciting cause of genital inflammation, the fish not attempting to lay or to fecundate ova under such circumstances, and great congestion of the special glands, leading to inflammation, is the result. The entire inflamed ovary may be artificially pressed out from an affected fish, which, after the operation, becomes healthy, fat, and, of necessity, sterile.

During the period when the young fish swims about with its umbilical vesicle attached, that appendage is subject to a fatal disorder, manifested by the appearance of small red spots, which spread to the body of the fish itself. M. Girdwoyn also speaks of a cancerous disease in young fishes, resulting apparently from the spots. ALBAN DORAN.

NEW INVENTIONS.

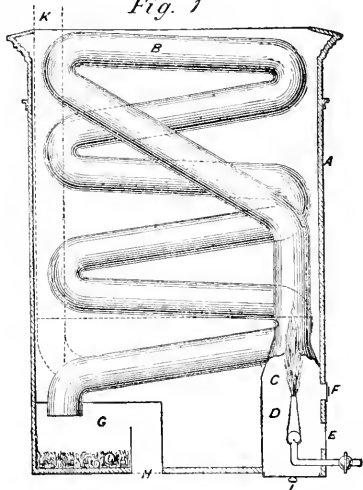
ARTICLE 1124.

IMPROVED AIR-WARMING AND COOLING APPARATUS.

MESSRS. ROBERT BOYLE & SON, of 64 Holborn Viaduct, have recently effected some important improvements in air-warming and cooling arrangements, which we have no doubt will prove of considerable value as a simple and at the same time economical means of providing a supply of fresh air at such a temperature as will be both safe and agreeable in all seasons of the year. The air-warmer is intended for warming the fresh air supply to a building where hot air, water, or steam pipes are not available. The arrangement consists of a copper or iron pipe, about 1½ inches diameter, placed in an inlet tube preferably of the form of a bracket. This pipe is made of zigzag shape, so as to cross and re-cross the tube from top to bottom, causing the incoming air to repeatedly impinge upon it in its passage through the tube. At the bottom of the tube an air-tight chamber, so far as the interior of the tube is concerned, is fixed, in which a 'Bunsen' burner is placed, the flame of which plays up into one end of the pipe, which is connected with the top of the chamber; the heat travels through the entire length of the pipe, the other end of which

may be made either to dip into a condensation box in the bottom of the tube or be continued as shown by dotted lines in accompanying diagram up into a flue or extraction shaft. If the pipe terminates in the box the vapour is condensed there and carried off through outside wall by means of a small pipe, and any products of combustion which may arise are absorbed and rendered innocuous by passing through a loose bed of charcoal, which covers the bottom of the box. The charcoal should be removed about once every fortnight or month, according to the extent the tube is used. The diagram below (figure 1) shows the arrangement, which is explained as follows :—

Fig. 1



'A' air inlet tube or bracket made of galvanised iron and painted, dimensions $24'' \times 16'' \times 6''$. These tubes can be treated ornamentally to harmonise with the decorations of the room, and where necessary may be placed in chases in the wall. The top of the tube should stand about 5 ft. 9 in. from the floor. 'B' copper or iron tube $1\frac{1}{2}$ in. diameter. 'C' chamber containing the burner. 'D' Bunsen burner. 'E' opening covered with perforated zinc communicating with chamber for the purpose of supplying air to burner. 'F' small hole fitted with sliding shutter through which the gas is lighted. 'G' condensation box. 'H' opening in bottom of box to allow of the circulation being maintained in the heating pipe. 'J' pipe for carrying off condensed vapour. 'K' continuation of pipe into flue or extraction shaft. 'L' movable bottom to flame chamber for purpose of cleaning tube. Where the tubes are placed against woodwork all chance of fire may be avoided by fitting them with a double casing or jacket and filling in the space between with asbestos or other non-conducting material. With this arrangement the air supply can be raised from a temperature of 30° to 130° , and to show that it is one of the most economical methods of heating in existence, it is only necessary to mention that the cost of gas consumed to raise the incoming air from a

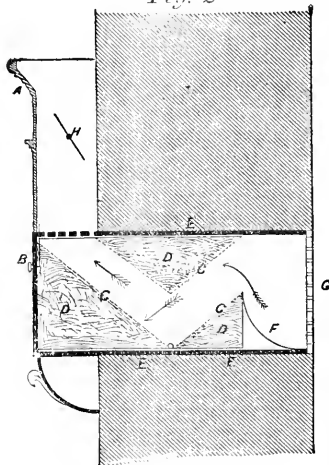
temperature of 40° to 100° is less than one farthing per hour, this being effected with the air passing through the tube at a velocity of 300 feet per minute or 18,000 feet per hour.

At the Reform Club where these tubes and heaters in combination with Messrs. Boyle's patent air-pump ventilators have been very successfully applied, a series of experiments were carried out by the patentees in conjunction with the Right Hon. Acton Smee Ayrton, ex-Chief Commissioner of Works, to whose suggestions the patentees are indebted for some important improvements in the apparatus. The result of these tests demonstrated that the apparatus was not only useful for warming the air supply for the purposes of ventilation, but that it might be used as the sole means of heating rooms. On testing the tubes with the anemometer the air was found to be passing in at the rate of 16,000 cubic feet per hour, the dimensions of the tube being $24'' \times 16'' \times 6''$, one-third of which was blocked up with the heating pipes. It is important to note that these figures compare most favourably with the results obtained by elaborate and expensive arrangements for artificially forcing air into a room by means of water fans, sprays, &c., which are not only expensive and troublesome to maintain, but owing to their bulk constitute an obstruction and eyesore in a room.

The tubes are fitted with regulating valves and deflecting shields to prevent the air from discolouring the walls. They can also be fitted with an arrangement for filtering and freeing the incoming air from blacks and dust. They are not expensive, the price of them ranging from 45s. to 100s., according to size and material used.

They are applied to a number of buildings (including the Guildhall and Lloyd's, Royal Exchange), and have been found to answer exceedingly well. The great objection to nearly all methods of ad-

Fig. 2



mitting fresh air is the disagreeable cold draughts they create. The appliance we have described effectually overcomes this, and should therefore be

welcomed as a really valuable addition to the list of useful sanitary inventions which are now in use.

Fig. 2 shows the arrangement for cooling the air in hot weather. It consists of an air inlet tube of bracket form, made of iron. The part which penetrates the hole in the wall has an outer casing, so that a space of about half an inch is left, in which is packed a non-conducting substance for the purpose of preventing the heat from the wall penetrating into the interior of the opening, and acting upon the blocks of ice which are placed in a movable drawer and kept in position by means of open galvanised iron or copper wire netting. The front of the drawer is also double, and packed same as casing. The outer air entering through the grating is deflected by a metal shield on to the suspended block of ice, and from thence on to the bottom of drawer, and thence up the tube into the room, it being not only cooled but purified thoroughly from blacks, dust, &c.

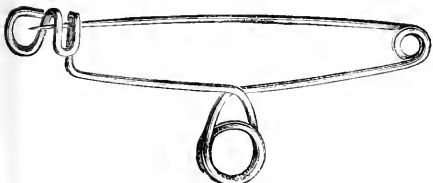
This arrangement would probably prove very acceptable in our fashionable London drawing-rooms during the season.

A in diagram denotes the inlet tube, B movable drawer, C C C wire netting, D D D ice, E E E non-conducting packing, F deflecting plates, G grating in wall, H regulating valve.

ARTICLE 1125.

A NEW SURGICAL PIN.

DR. J. WARD COUSINS, surgeon to the Royal Portsmouth Hospital, introduces to the notice of the profession a new bandage and dressing pin, with the hope that it may prove an useful though humble addition to the common necessities of every-day practice. He observes, in the *Brit. Med. Journ.*, May 5, that during the last few years safety-pins have been largely used in many hospitals, and some surgeons and nurses carry a supply with them for every emergency. The safety-pin, however, is by no means a perfect contrivance for surgical purposes; for in its application it is often troublesome to fasten and unfasten, and it is very liable to slip into the folds of a bandage, and thus to cause delay in its removal. The surgical pin which is represented in the engraving is specially adapted for surgical work, and possesses qualities which will be appreciated by surgeons, accoucheurs, and nurses. It is handy in introduction, safe in position, and capable of instantaneous removal. This simple contrivance is in the form of a spring-pin, which is converted into a novel instrument by the addition of a special shield and a short handle. It is manu-



factured in stout pin-wire, and midway between the spring and the shield a convenient handle is produced by giving the metal a loose double twist. The handle is the special feature: it gives complete control over the pin, assists in directing the point,

and renders both its introduction and withdrawal easy and instantaneous. When in position, by the aid of the handle, the point can be instantly protected; and then, by raising the shield with the handle the pin is at once unfastened, and can be readily removed. In this way ease and rapidity of application can be secured, and these qualities render the new surgical pin far more handy than any other kind of bandage and dressing holder. For hospital work it will be found a valuable little innovation, and it is also well adapted for dressers and surgeons in the field in all the appliances of immediate surgery. It is manufactured by Messrs. Kirby, Beard, & Co., of London and Birmingham, in several convenient sizes. The largest pins are especially suitable for chest and abdominal rollers, and they will prove also an excellent substitute for the tapes which are fixed to the ends of the India-rubber bandages now universally employed in practice.

ARTICLE 1126.

THE KEY-RING ARTERY-CLAMP.

BY BREWER MATTOCKS, M.D.

IN a country of long distances, one must betake himself to many short contrivances. A professional neighbour of mine—his assistants failing him—performed lately his first ovariectomy successfully alone. With us, every farm has from two to an indefinite number of horse-power agricultural implements, and every town its railway and manufactories; consequently we see much of *accidental* surgery. Of necessity, then, our surgical instruments must to a great extent be both automatic and labour-saving.

The artery-clamp, of which I send an illustration, explains itself; but the advantages claimed



for it I will number consecutively. 1. The operator is by use of the clamp enabled to tie the arteries himself and at his leisure. 2. It is self-holding, and its lightness will prevent its tearing loose, while its shape enables the ligature to slip to its place. 3. It is small, compact, and, if necessary, may be left in position for several days; for instance, after one has searched for an artery at the bottom of a wound. 4. It is especially adapted for cases of emergency, and, as its name suggests, several of them may form a part of one's key-ring furniture. 5. Its simplicity enables one to use it without a commentary, and its cheapness to buy a set of them. To Tinman & Co., of New York, am I indebted for perfecting my suggestions.

Faribault, Minn., U.S.A. May 1883.

DIETETIC NOVELTIES.

ARTICLE 1127.

HEWLETT'S 'LIQ. ERGOT. PURIF.'

THIS is a reliable preparation of ergot and is well adapted for obstetric practice. The ordinary dose is from twenty to forty minims, the parturient dose from one to two drachms.

MISCELLANY.

THE COLDEST PLACE IN THE WORLD.—Verchogansk in Siberia is the coldest place in the world. At one time it was thought that the coldest weather was to be found at Irkoutsk, but the average temperature at Verchogansk is much lower; in January it is 45° centigrade, in February 49°, in March 33°, &c. On Dec. 30, 1871, the thermometer was 63° below zero, but this, however, happened but once. The cold is so intense that three coats of reindeer skin scarcely prevent the wearer's blood from freezing. Every respiratory movement hurts the throat and lungs. The watery exhalations of the breath freeze and present the aspect of fine needles of ice. These rub one against the other, making a noise like that of tearing velvet or thick silk. An English traveller relates that the whole of the caravan which accompanied him on his journey in these parts were enveloped in a blue cloud composed of the condensed breath of the men and animals. A crow flying slowly through the frozen air left behind it a track of condensed vapour.

PREVENTION OF INFECTIOUS DISEASES.—At the sitting of the Berlin Medical Society on Feb. 21, it was suggested that a fine should be imposed on parents who did not isolate their children when scarlatina or diphtheria was in the house. The difficulties of isolation among the poor were fully recognised, as also the uncertain state of medical knowledge with regard to the duration of the period of infection. Herr Goldsmidt stated that he had prevented the spread of scarlatina in a house by anointing his patients with lard, and then dusting on salicylic acid.

A MOTH IN THE EAR.—Dr. Howard Jones, of Circleville, Ohio, relates (*New York Medical Record*) the following somewhat dramatic case, *apropos* of foreign bodies in the auditory meatus. 'Two gentlemen were walking leisurely down the street a quiet evening in July, after the street lamps had been lighted, one of them wearing a white straw hat. As they came near a gas-post, an insect flying rapidly, struck the straw hat of No. 1, and cannoned directly into the right external meatus of No. 2. The gentleman clapped his hand to his ear and screamed with pain. He entered the nearest dwelling, where I found him a few moments later, greatly excited and suffering intensely. The lady of the house had attempted to pour milk into the ear, but could not succeed. Upon examination, I discovered the external canal completely plugged with a dirty grey body, which when touched, the patient said, scratched terribly. The blades of a pair of small forceps were at once carefully inserted upon each side and then closed upon the object. By careful pulling, it was gradually withdrawn, and proved to be a grey-and-white moth, something over an inch in length, and so large in diameter that it fitted tightly into the canal.'

THE JOHNS HOPKINS MEDICAL SCHOOL.—It is stated that the Medical School of the Johns Hopkins University, in Baltimore, will be opened before the close of the year.

A NEW THEORY.—The *Wiener Med. Blätter* reviews a book with the title 'Eine neue Theorie über Erzielung von Immunität gegen Infektionskrankheiten,' by Dr. Hans Buchner. The new theory is that in medicine, as well as in surgery, it ought to be possible to find some way of preventing the entrance of germs into the body. As inflammation has been found to alter the tissues so that the specific germs of the different diseases find no longer the suitable nidus for their development, Dr. Buchner looked about for some chemical agent which should so act on different organs as to cause an amount of inflammation sufficient to affect the micro-organisms without injuring the individual concerned. Such, he believes, he has found in arsenic, and, to a lesser degree, in phosphorus and antimony. The experience of the Styrian mountaineers shows that no disadvantages result from even a life-long use of arsenic, and those people are of opinion that it protects them from all kinds of illness. From its

well-known antiseptic action after death, the author thinks it ought to have a similar effect during life, and he thinks it will be of special advantage in those diseases which have a long period of incubation—e.g. small-pox, scarlatina, measles, and enteric fever.

INTERNATIONAL EXHIBITION AT NICE.—The Mayor and Municipality of Nice have resolved on opening an International Exhibition there in December next. The Society of Medicine at once seized the opportunity to point out the importance of devoting a portion of the building to a Medical and Sanitary Exhibition, which will be as complete and practically useful as possible. All who have lived on the Continent know how far from perfect are the hygienic and sanitary arrangements of our neighbours on the other side of the Channel, and the Riviera has had in these respects perhaps more than its fair share of blame. The Medical and Sanitary Exhibition at Nice it is hoped may be the commencement of far better things than exist at present, and patients may be sent to the South in search of health with none of those misgivings as to imperfect drainage, untrapped closets, and ill-ventilated houses, which make us sometimes hesitate whether an English winter, with its damp, and cold, and darkness, may not, after all, be safer than the cloudless sky and brilliant sunshine of the Mediterranean. The London agents are Messrs. Johnson, Castle Street, Holborn, London, E.C., to whom all applications for space must be addressed, and from whom all information can be obtained.

It is proposed to exhibit in Section II., Hygiene, Medicine, Climatology.

Hygiene.—Class 5.—Distribution and Purification of Water for Domestic Use—Modes of water supply, filtering, purification, distribution to dwellings, models and plans having special reference to questions of hygiene. Class 6.—House Drainage and Sewerage—(a), Models and plans of sewers; (b), Different systems of emptying cesspools, &c.; (c), earth closets, water closets, &c.; urinals, sinks, &c.; (d), Apparatus for baths and hydrotherapeutics. Public baths; (e), Various kinds of washing apparatus. Public washhouses. Class 7.—Hygiene of Public Establishments, of Houses, of Ships—(a), Architecture of hospitals, of barracks, and of private houses; (b), Different appliances for hospital wards, and for the sick room; (c), Instruments and apparatus for detecting adulteration of articles of food and drink; (d), Demography. Medical statistics.

Medicine and Surgery.—Class 8.—Pharmaceutical Preparations—Dietetic and pharmaceutical preparations. Disinfectants. Class 9.—Mineral Waters—Mineral waters, and everything relating to watering places, such as architecture, arrangement of baths, &c. Class 10.—Medical and Surgical Instruments and Appliances—(a), Instruments and appliances for anatomical and histological research; (b), Instruments and appliances used in investigation of disease; (c), Surgical instruments arranged according to their several purposes, as for amputation, resections, &c. Special instruments, as dental, eye, and ear instruments. Obstetric instruments, and those used in electro-therapeutics. Pouches, and instrument and medicine cases, for military and naval surgeons. Class 12.—Hydrotherapeutics. Medical Gymnastics—Hydrotherapeutics, orthopedic apparatus, gymnastics as applied to medicine and hygiene. Class 13.—Life-saving Apparatus. Ambulances—Instruments and appliances for accidents, naval and military surgery, civil and military ambulances. Class 14.—Special Treatises—Works bearing on the different above-mentioned groups.

Climatology.—Class 15.—Meteorology Applied to Climatology—Meteorological instruments. Class 16.—Meteorological Observations—(a), Meteorological observations and stations; (b), Summary observations. Curves of temperature and pressure from different stations. Class 17.—Special Treatises. Plans. Charts.—Works published on meteorology generally.

The London Medical Record.

ARTICLE 1128.

CHARCOT ON A CASE OF SUDDEN AND ISOLATED SUPPRESSION OF MENTAL VISION OF SIGNS AND OBJECTS (FORMS AND COLOURS).

M. CHARCOT (*Le Progrès Méd.*, No. 29, 1883), after quoting Ribot (*Les Maladies de la Mémoire*, Paris 1881) to the effect that there are in the mind particular memories, and in effect special memories associated with each special sense-organ, relates the following case.

M. X., a merchant, was well educated, knowing several ancient and modern languages, and had the *Iliad* by heart. His father was professor of oriental languages and had also a remarkable memory; and his son, aged 7, knew already with marvellous accuracy the smallest historical dates. The memory of M. X., like that of his father and son, was a *visual memory*, mental vision reproducing the features of a person or the form and colour of objects with intensity equalling that of the object itself. He could recall at will letters, the page of a book, and read mentally the part of which he was in search. He could add long columns of figures by simply looking at them. He could not recollect a passage of a play heard at the theatre without also recalling the scene, the actors, and all the accessories.

He had travelled much. He was fond of sketching, and drew well. His mind presented him, at will, with the most exact panoramas. If he remembered a conversation, sought an association, or a particular word, the place of conversation, the face of his companion, the entire scene, of which he sought only a detail, appeared in its entirety before him. Auditory memory, on the other hand, had always been defective, and he had never had any taste for music. Business troubles caused him to lose appetite and sleep; and though his affairs went well, his mental disturbance did not subside, and one day he noticed a complete change; he thought he was going mad. Everything seemed strange and new to him; he became nervous and irritable; his memory of forms and colours had disappeared. When he had satisfied himself that this was the sole change, he became reassured as to his mental state, and continued to carry on his business by invoking other forms of memory. He found that, whenever he returned home after an absence, the town and all its buildings looked quite strange; he could neither describe nor draw the principal place in the town; he had lost all his former power of drawing. The appearance of his wife and children was also forgotten; he even forgot himself, and was seen to apologise to an individual apparently barring his way in a public gallery, and who was no other than himself reflected in a glass. He complained very much of his loss. He said he knew his wife had black hair, but he found it impossible to realise this colour or to recall her appearance or features. He had lost the memory of the appearance of his paternal home, which formerly he frequently recalled to mind.

Examination of his eyes was quite negative. He

had a myopia of -7. There was some slight enfeeblement of the chromatic sensibility extending equally to all the colours (Parinaud.) No bodily symptoms preceded, accompanied, or followed this decay of visual memory. At present M. X. is obliged, like the rest of the world, to refer to his letters, when he wants some information, and to look them over till he reaches the required statements. He only remembers the first few verses of the *Iliad*, and he now reads Homer, Virgil, and Horace only with difficulty. When he adds, he calls over the numbers in a low tone, and only proceeds by small partial calculations. When he wishes to recall a conversation, he knows that he must only rely upon his auditory memory. The words seem to sound in his ear, a sensation quite new to him.

He was obliged to make efforts of audition to reproduce in writing two lines which were given him to read in a daily paper; moreover, in reading them, he executed movements with his lips, of which he was conscious; and, deprived of mental vision, it is now necessary for him to have recourse to internal language, and to the movements of articulation of the tongue and lips to understand what he reads. When he wants to learn anything by heart, he has to read it aloud several times.

M. X. is a German, but speaks French very well and fluently; but he says he is no longer able to think in French, and that he is obliged to translate his thoughts from German or Spanish, the languages of his infancy. In his dreams he has no longer any visual representation of things; the representation of words remains solely, and these are nearly exclusively Spanish.

In addition, he has some degree of verbal blindness. Asked to write the Greek and German alphabets, he omitted many letters. These were written before him, but it was long before he could recognise them, and only after he had copied them himself. Greek words containing these letters were dictated to him, and, being familiar to him, were written at once correctly, but when they were written by others he could not read them till he had copied them himself. Still there was no special sensitiveness to the impressions produced by muscular movements; for instance, he was unable to read the word when he was made to trace Vienna, with his eyes shut.

In a letter to M. Charcot, M. X. writes a confirmation of these statements, and adds that his character is changed, that he is calmer, less accessible to annoyances; that he lost a relation without experiencing the grief that he should have felt had he been able to recall his features, the phases of his disease, and the distress of his family, as he would have been able to do formerly. He concludes his letter by saying that this faculty of visualising is possessed by a brother, professor of law in the University of Z., and by a sister, a distinguished painter, and that 'at present he is obliged to repeat the things he wishes to retain in his memory, while formerly he had simply to photograph them by sight.'

M. Charcot also mentions the case of a painter who, at the age of 56, complained of no longer being able to represent things to himself in imagination, and that he was only good for copying, and in copying he was obliged to keep the model constantly in view.

M. Charcot says that M. X. belongs to the category of persons described by Galton, who possess the power of visualising all that they desire to call to mind. It is remarkable that this loss has not

affected his power of expressing himself in speech. This is perhaps due to his success in developing an auditory memory.

Verbal amnesia is not a simple unity, but a complex condition. Amongst educated persons we find, 1, the auditory image; 2, the visual image; 3, the image of articulation, and, 4, the image of delineation or writing. Auditory or visual amnesia is the first stage of verbal deafness or blindness. When, the idea being present, the auditory or visual image of the word characterising it cannot be evoked, it is verbal amnesia, auditory or visual; but when, in addition, the word when written or the sound when produced are not recognised, we have verbal blindness and deafness. On the same principle, we might speak of motor verbal amnesia when either the articulate or the written image was lost.

It would be convenient to speak of the representatives of these types as visuals, auditorys, and motors. M. X. would thus be a visual.

This investigation seems to lead to the conclusion that memory is a function of particular regions of the brain, and that this organ is made up of numerous parts, each having special functions, a view already generally admitted by those who study the physiology of the brain, not only on animals in the laboratory, but also by clinical observation and pathology.

ROBERT SAUNDEY, M.D.

ARTICLE 1129.

VOGT ON FAT-EMBOLISM IN RESECTION OF THE KNEE.

IN an original contribution to the *Centralbl. für Chir.*, No. 24, 1883, Dr. P. Vogt, of Griefswald, states that, with our very imperfect knowledge of the primary conditions of fatal absorption of fat after injuries of bone, it might be of interest to direct attention to one point which, in his opinion, is likely to favour extensive fat-embolism after resection of the knee, and the neglect of which is more frequently followed than is generally thought by a fatal result from the operation. The following case is reported, of speedy death after resection of the knee performed under apparently favourable conditions. The patient was a girl, aged 12 years, on whom resection of the knee was performed for fungous disease, with extreme and long-standing contraction of the flexor muscles. On opening the joint, the extremities of the femur and tibia were found to be so far free from tubercular deposit, that it was possible to save the epiphysal cartilages. The whole of the osseous elements of the joint were in a condition of extreme fatty degeneration, so that the removal of the articular surfaces could be readily effected by the use of a knife. This condition seemed a likely result of the prolonged inactivity of the limb, and did not decidedly contra-indicate subsequent union of the sawn surfaces. The lower limb could now be readily straightened, and in this position of full extension the opposed osseous surfaces came into direct contact. Although the patient had taken but little chloroform, and there had not been excessive bleeding, and carbolic acid had not been used for disinfection, she, after the influence of the anæsthetic had passed off, remained extremely prostrate. The countenance was pallid, the respiration shallow,

sensibility much reduced, the pulse scarcely perceptible, the heart's action very slow, and the extremities cold. Notwithstanding the use of stimulating remedial agents, there was no improvement in the condition of the patient, who became more and more drowsy, and died after an interval of twenty-four hours. On *post mortem* examination, appearances of very extensive fat-embolism of the lungs were presented.

After careful consideration of the symptoms presented in this case, and of the *post mortem* appearances, Vogt felt obliged to exclude all other conditions as causes of the collapse, and to attribute the fatal result to fat-embolism, indicated by diffused infarction in the lung, containing large and small globules of oil. As has been shown by the experiments and clinical observations of Czerny, Recklinghausen, and others, only very extensive fat-embolism of the lungs can cause death, whilst the slight fatty infarctions of the pulmonary vessels, frequently occurring after injury to bone, do not result in serious lesions. The necessary conditions for the production of fat-embolism are: sufficiently large normal or pathological orifices in the walls of the vessels; the presence of free oil near the vessels; and, lastly, a *vis à tergo*, usually the pressure of extravasated blood. All these conditions are frequently present in cases of fracture; but fat-embolism rarely occurs after amputation and resection, since, on account of the free discharge of the secretions of the wound, there is not sufficient pressure to favour absorption. The only other case of fat-embolism after resection known to the author is one that occurred in Professor Lücke's practice after resection of the hip. In Vogt's case, as is pointed out, the conditions for the absorption of fat by the surfaces of exposed bone were extremely favourable. When the limb was straightened after the ends of the bones had been removed, the sawn surfaces came into very close contact, and were pressed together. The bones were kept in this close contact by two wire sutures, so that there was no possibility of the secretion from the sawn osseous surfaces and of the abundant oil flowing away into the soft parts of the thigh and leg. Vogt holds that the rapid absorption of oil from the sawn surfaces of the degenerated bones is thus fully explained. Under no circumstances, it is stated, should osseous surfaces found in a similar condition in future cases of resection of the knee be placed in close contact. The enfeebled cardiac action in the anæmic subject of Dr. Vogt is pointed out as having been a favourable condition for the arrest and accumulation of oil in the lungs. Dr. Vogt has been led by a consideration of this case to suggest that, in dealing with similar cases of disease of the knee, with extreme flexion of the leg, and fatty degeneration of the marrow of the femur and tibia, it would be well, if the limb in resection cannot be straightened without close contact of the sawn surfaces of bone, or without removal of the epiphysal cartilage, to have recourse to amputation.

Allusion is made to an interesting point in this case, that, in the interval between the operation and the death of the patient, the temperature remained low, and showed no tendency to rise. This fact indicates that lowered temperature is pathognomonic of uncomplicated fat-embolism, and that the increase of temperature associated with pneumonic symptoms recorded by some observers in cases of such embolism was due to some complicating infective condition.

W. JOHNSON SMITH.

ARTICLE 1130.

BRADFORD ON ANKYLOSIS OF THE SPINE.

DR. E. H. BRADFORD, of Boston, U.S., reports in the *Annals of Anatomy and Surgery*, June 1883, three cases of ankylosis of the spine following rheumatism, two being of gonorrhoeal origin. The subject of the first case was a plumber, 36 years of age, who enjoyed perfect health until, when 20 years of age, he first contracted gonorrhoea. This was followed by a severe attack of rheumatism, which invaded several joints and lasted for nearly two months, and then resulted in complete recovery, with the exception that the back—which had been involved in the rheumatic process—remained stiff. The patient subsequently had several attacks of urethritis, each attack being invariably followed by rheumatism, and after the rheumatism by an increase of the stiffness of the back. When he was first seen by Dr. Bradford, the spine was found absolutely stiff from the sacrum to the occiput, and was curved with the concavity forward, a slight curvature involving the whole spinal column with the concavity to the right, but unaccompanied by any rotation of the vertebra or projection of individual spinous processes. The true ribs were found to be firmly united to the spine. As a result of this, there was no expansion of the chest in respiration, and the breathing was entirely diaphragmatic. The curvatures did not diminish when the patient was recumbent, and the spinal column was absolutely inflexible. The patient did not suffer from any rheumatic or neuralgic pain, and was able to ride and walk with comparative freedom. The back had become gradually more curved during the previous few years, independently of any fresh attacks of gonorrhoeal arthritis, from which the patient had not suffered for four years. The other joints, though implicated in the attacks of rheumatism, had escaped permanent stiffness, and were perfectly normal in their function.

The second case was one of an apparently healthy man, who had had gonorrhoea several times, each attack being followed by mild rheumatism. After the last attack of gonorrhoea, three years before he was seen by Dr. Bradford, there was a severe rheumatic affection of each knee. The knees became stiff and flexed, and remained so for six months; the back became rigid and painful, and the patient was bedridden for some time, but subsequently became able to move about. On examination the back was found arched, and the patient appeared to be round-shouldered. The spinal column was quite inflexible, there being no motion from the seventh cervical vertebra to the sacrum. In stooping, all the motion was at the hip-joints, the back moving as if the spine were one bone. The chest could not be expanded, the ribs being ankylosed to the vertebrae, and the breathing was diaphragmatic. There was no abnormal projection of any one spinous process, and no persistent pain or tenderness. The patient complained of stiffness in the back and pain in attempting to lift a heavy weight.

Cases of gonorrhoeal rheumatism of the back, Dr. Bradford states, must either have hitherto escaped attention, or must be exceedingly rare. In 119 cases collected in the article on gonorrhoeal rheumatism in the *Nouveau Dictionnaire de Médecine et Chirurgie*, the spine is not mentioned as having

been involved. In the 116 cases carefully investigated by Nolen (*Deutsches Archiv für Klinische Medizin*, No. 8, 1882), two are mentioned as having had, in combination with affections of the other joints, vertebral arthritis. One of these is mentioned as having recovered, and the other as not being entirely well when it passed from observation.

In the following case there was a somewhat similar condition of the back, which, however, was less severe, and had not a gonorrhoeal origin. A woman of fairly healthy appearance, 31 years of age, had been in good health until she was 28 years of age, when she began to suffer from rheumatism, usually of a subacute character, and also a few acute attacks affecting the smaller joints. These attacks passed off without leaving any permanent effects. Her spine, however, gradually became stiff, and she suffered occasionally from pains in the neck, back, and side. When seen by Dr. Bradford, she presented marked kyphosis in the upper dorsal and cervical regions; and, as the patient walked, the head was held rather stiffly. The antero-posterior curvature did not disappear when the patient lay down, and the stiffness interfered with ready and quick turning of the body. There was no epigastric pain, no pain at night, no general muscular stiffness in the morning or during the day, and no distension beyond the kyphosis in the back. The kyphotic curve was a long and gradual one, involving the cervical and dorsal regions, similar to the normal physiological curve, except in a greater degree of curvature and in the stiffness. On passive motion, the spine was found to be rigid as far down as the middle dorsal region. The head, however, could be turned freely at the atlanto-cervical articulation. Slight rigidity of the muscles in the cervical and upper dorsal regions could be felt on palpation, but the lumbar muscles were normal. All the other joints were normal. The patient stated that her father and brother had suffered severely from rheumatism. The clinical history of this case and the appearance of the back were sufficient, Dr. Bradford points out, to exclude in the diagnosis Pott's disease; and the steady persistence of the kyphosis for several years without material change in outline, and the absence of other manifestations, render it impossible to regard it as a form of neuromimesis. It must, therefore, it is held, be regarded as an instance of chronic rheumatoid arthritis of the spine, not implicating other joints, though this is a decidedly unusual affection.

W. JOHNSON SMITH.

ARTICLE 1131.

MIGLIORANZA ON INTRAVENOUS INJECTION OF MILK, BLOOD, URINE, BILE, AND OTHER SUBSTANCES.

IN 1873 Albertoni proposed the injection of whey in cholera; almost simultaneously, Hodder successfully in three out of four cases of cholera practised the transfusion of milk. Thomas, of New York, proposed to substitute the transfusion of milk instead of blood, as being more safe and even more nutritious than blood. Lewis and Marvand asserted that milk need not be digested to be assimilated, but passes as such from the stomach into the circulation. This Dr. Miglioranza, in accord with most physiologists, denies (*Gazz. Med. Ital. Lombardia*, May 26, June 16, 1883). Milk, like sugar and starch, which are changed into glucose, and albuminoids

which are converted into peptones, must be subjected to the processes of digestion before they can be of use as aliment. Hence it is an error to propose the transfusion of milk instead of blood. When milk undigested is transfused, the fatty and albuminoid constituents pass out by the kidneys, and do not serve as nutriment. The sugar escapes in part in the saliva. The presence of a considerable quantity of undigested milk in the blood causes vomiting, diarrhoea, prostration, and even death. The fat collects in the kidneys, and produces fatty infiltration and chyluria. In cholera, therefore, it is better to inject whey only; in anaemia, the injection of milk cannot be of service. The secretion of urine depends on the state of the blood-pressure in the Malpighian corpuscles. The increase of the blood-pressure causes the passage of colloid and albuminoid materials, and even of blood. Does therefore the fatty filtration by the urine, after transfusion of milk, depend on increased blood-pressure caused by the introduction of liquid into the circulation? The solution of this question may help to explain some cases of chylous and albuminous urine. The author finds that the blood-pressure in the capillary circulation of the kidney is not augmented, and that the filtration takes place in a state of diminished pressure; he concludes that chyluria and albuminuria in certain morbid states may depend on stasis and relaxation of the vessels. The sudden addition of a considerable quantity of milk to the circulation causes a fall in the blood-pressure, and considerable collapse in systolic force. Milk must be carefully filtered before its transfusion, so that the butter and milk-globules, some of which are much larger than blood-corpuscles, may not give rise to obstruction in the pulmonary or cerebral capillary circulations. The transfusion of milk is always dangerous; whey may be used, as Albertoni suggested; he injected 90 to 100 grammes into the veins of dogs without harm. This shows that the danger in injection of milk is not from the quantity of fluid. The undigested casein is transformed into urea, and appears as such in the urine, and therefore is of no use as an aliment. Thomas's argument was founded on the resemblance of milk to chyle, but they are really very dissimilar. In his experiments his animals did not suffer, because he only injected very small quantities of milk.

Transfusion of blood.—The best method is that of *homogeneous and direct transfusion*, that is, the transfusion of arterial blood of one animal into the vein of another of the same species without exposing the blood to the air. *Indirect transfusion of defibrinated heterogeneous blood.*—Blood not denitrated would quickly coagulate in the veins and cause death. The author's experiments confirm the condemnation of the method by which blood of an animal of a different kind is denitrated in an open vessel and injected by a syringe. When a considerable quantity of blood is suddenly injected into the circulation, great plethora and intravascular pressure results; but if a corresponding amount be first taken away, the injection is well borne. This points to what is the essential indication for transfusion of blood. Where there has been great hæmorrhage, the transfusion of denitrated blood, even of an animal of a different species, is of the greatest benefit. Even in these cases it is not invariably successful; in one experiment the animal, after apparently doing well for three days, died of melæna. This is always liable to happen after transfusion of heterogeneous blood. Professor

Giannuzzi found that, of two dogs equally reduced by starvation, that one died first in which repeated transfusion of blood was practised.

The author's next series of experiments were to determine the effects of the *intravenous injection of urine*. It is of the greatest practical interest to determine whether the symptoms of uræmia are due to the accumulation of the principles of urine in the blood, or to the products of the decomposition of the urine. He found that normal recent urine, even from an animal of different species, when injected in considerable quantity, gives rise to no symptoms of uræmia, the only effect being slight increase of pulse and respiration from the temporary increased blood-pressure. This, again, shows that the danger in injecting milk is not owing to the quantity injected increasing the blood-pressure, but must arise from the heterogeneous nature of the undigested milk. The components of urine exist preformed in the blood, while those of milk do not. After lithotomy, the urine bathes the raw surface of the wound without harm; so, too, as is well known, urine is an old popular remedy for ulcers, wounds, &c. In disease of both kidneys, or where they are extirpated, the elimination of urea is arrested, the tissues can no longer unload into the blood the urea of their own interstitial juices, and their functions are paralysed. Then arises a state of uræmia (urine accumulated in the blood) with mixed irritative and paralytic phenomena affecting the nervous, muscular, and gastro-enteric systems, which are encumbered with urinary elements; hence vomiting, diarrhoea, convulsions, and coma. But these phenomena do not depend on direct poisoning of the blood by the normal components of the urine. The injection of 15 grammes of urea into the femoral vein of a dog weighing 8 kilogrammes gave rise to no symptoms. When carbonate of ammonia is injected, it gives rise to all the symptoms of uræmia, tetaniform convulsions, distress of breathing, hurried circulation, hyperæsthesia, lethargy. When urine in the ureters or bladder undergoes ammoniacal fermentation, the blood takes up the ammonia, and these symptoms are developed.

Intravenous injection of bile was next studied. The principles of the bile do not exist preformed in the blood, as do those of urine. A distinction must be made between the effects of suppressed secretion of the bile from the blood, and the effects of the re-absorption of bile already formed in the liver. The effects of suppressed secretion cannot be studied experimentally, as the liver cannot be extirpated without causing death. In dogs, the symptoms produced by injecting bile into the blood are prostration of strength, hurried breathing, salivation, vomiting, and *dilatation of the pupil*. The injection of 50 grammes caused death at once. These symptoms are analogous to those of icterus from re-absorbed bile (from obstruction of the common bile-duct). Guglielmo maintains that some of the principles of bile are re-absorbed, and meet some physiological want in the blood; but the author's results prove that all these principles are harmful. The salts of the bile are decomposed in the intestines into cholic acid, &c., which are insoluble in water.

Cholesterine exists in constant but very minute proportions; it is considered as a nervous detritus; in excess it causes a dyscrasic and infective malady, cholesteræmia (Flint and Salisbury). Prof. Lussana attributes to it a special and important influence in miliary fever. When injected into the blood, it is

much more deleterious than any other principle of bile. It seems strange that a substance which is contained in blood and bile, although in minute proportions, should give rise to such dangerous symptoms. Another example of the same sort is found when Liebig's extract of beef is injected. In three out of four experiments of the author's with extractum carnis the animal died; and this is not owing to the presence of ptomaines, which are products of putrefaction, but merely to the state of undue concentration. Prof. Lussana asserts that some poisons are eliminated with the bile. The author made several experiments with carbuncular virus. He found that this, at all events, is not eliminated with the bile.

Intravenous injection of aromatics.—Essential oils, æthanitic ether, &c., if much diluted, are stimulant only. The fatty acids in very small quantity are physiological excitants; and a larger quantity, like urea, cholesterine, &c., causes death.

Intravenous injection of alcohol and aldehyde.—Alcohol can exist in the blood without causing coagulation even in as large a proportion as 1 to 300, and this proportion is not necessarily fatal. The injection of 1 to 1,000 produces the phenomena of intoxication. The effects of alcohol are more potent in man. The symptoms of acute alcoholic poisoning are attributed to the transformation of alcohol into aldehyde, which is much more pernicious than alcohol. Sensibility, motion, and respiration are paralysed, while the heart's action may still preserve its energy. Probably the cases of acute alcoholic poisoning of asphyctic form are to be attributed to this transformation of alcohol into aldehyde. G. D'ARCY ADAMS, M.D.

ARTICLE 1132.

LEWASCHEFF ON THE THEORY OF TROPHIC NERVES.

DR. S. W. LEWASCHEFF, of the Laboratory of Professor S. P. Botkin (*Centr. bl. für die Med. Wiss.*, 24 März), observes with reference to the question of trophic nerves, that clinical observation has hitherto been opposed to the results of experimental investigation. For this reason, he submits the results of several years' researches on this point. He has studied the effects of the interruption of nervous influence by division of numerous peripheral nerve-trunks of a certain portion of the body, or the results of augmented nervous influence by stimulation of corresponding nerves.

Experiments under the first head are comparatively few in number, because the author has had principally in view the results of stimulation of the nerves, his attention having been drawn to the observation made by himself, that trophic disturbances are more frequently the result of stimulation of nerves than of paresis. In the second place, later researches show that excitement of nerves follows division of their peripheral branches. Lastly, the results of division of the nerve-branches have been observed by the anaesthesia induced; whereas, by the employment of a special method, by which the sensibility is augmented, the influence of nerves on nutrition can be precisely observed.

Dr. Lewascheff's experiments have been made upon dogs, the hinder limbs of which appeared most suitable for the purpose, on account of the distance of the one nerve from the blood-vessels, an important

point, as the same experiments were thus repeated several times with less risk of danger to the animal; besides that coming changes could be more conveniently controlled, and one limb compared with the other.

The nerves were either divided or stimulated by means of sewing with thread, moistened with weak saline solution or dilute sulphuric acid. By these means the slightest signs of excitement could be observed, and the effects graduated by altering the strength of the solution. At first, only a small portion of nerve was included in the thread. The presence of the thread caused inflammation in the nerve, spreading more or less upwards and downwards; in some animals lasting a considerable time, in others passing off rapidly. In some animals, no effects followed the sewing of the nerve; in others, the neuritis spread extensively, and seemed to affect the whole system. In some cases, the local phenomena of the stimulation of the nerve are seen in the diminution of vessels and consequent lowering of temperature; phenomena which last a variable time and gradually subside. These, however, occurred only in a few instances; in the greater number the insertion of the thread produced effects of an opposite character. A few days after the operation, the vessels of the extremities were dilated, the pulse became strong, and the temperature raised. These phenomena continued an uncertain time, in some as long as seven or eight months; they could be renewed by repeating the suture.

After the phenomena described had lasted for a long time, the usual signs of altered nutrition became evident. The soft parts about the nails became swollen, and frequently superficial ulceration also supervened; psoriasis-like scales formed between the toes, with excoriation on the soles of the feet. Wasting of the muscles followed. In the animals that were killed, or incidentally died, the microscope showed dilatation and plugging of vessels, with vascular loops, and aggregation of round cells outside the vessels. These passed gradually into connective tissue. This newly formed fibrillar tissue began to contract and induced a scleroid condition of the skin. The general symptoms that appeared were hyperæmia of one half of the body corresponding to the limb operated upon, with elevation of temperature, local inflammation, eczema, keratitis, &c., and in some younger and more delicate animals the nervous excitement gave rise to epileptiform attacks, which even caused death in one instance. The origin of the lesion described, it was evident from the different state of the 'controlling limb,' was to be traced through deranged vaso-motor influence.

[The preceding abstract presents the chief points of what is termed by the author, a 'preliminary essay'; the fuller details of which we hope to be able to lay before our readers.—*Ed.*]

W. B. KESTVEN, M.D.

ARTICLE 1133.

IMBERT ON TRIPIER'S MUCOUS FLAP IN PLASTIC OPERATIONS ABOUT THE MOUTH.

PROFESSOR LÉON TRIPIER, who occupies the Chair of Surgery at Lyons which has been rendered famous by Ollier, Bonnet, and others, has recently proposed and adopted a novel idea for obtaining a more perfect lip in plastic operations about the

mouth. A flap of mucous membrane in the form of a bridge—*i.e.* with both ends attached, but the flap otherwise detached from the deeper textures—is applied carefully to the free border of the new lip; and the result of the proceeding is said to be that, both in appearance and in usefulness, the new lip is remarkably superior to that obtained by the ordinary methods of operating.

Dr. Imbert* now gives an exhaustive account of the different operations for restoring the lower lip after removal from various causes, but especially for cancer, and describes fully the proceeding of Professor Tripiet, which is applicable not only to plastic operations on the lower lip, but to those on the upper also, and to those involving the angles of the mouth.

A flap of mucous membrane is carefully raised, leaving both ends attached, and the anterior border is sutured thoroughly, the posterior only loosely, so as merely to prevent any curling up of the elastic mucous flap. The breadth of the attached bases ensures plentiful blood-supply, or is intended to do so, and there should be very little torsion or tension.

When the proceeding is applied to the lower lip, the mucous flap is not attempted until the skin-flaps have been cut. Care must be taken to avoid using the mucous membrane covering the gums, as it is poorly supplied with blood, and either sloughs readily or shrinks up. Towards the angles of the mouth a considerable thickness can be obtained, but at the middle line of the lip the coronary arteries lie very superficially, and only a thin and narrow strip can often be left, which in one of the cases reported (No. 1) soon disappeared, and thus the result was no more satisfactory than if no mucous membrane had been preserved at this point. The mucous flap should be, if possible, enough to cover completely the bleeding surface of the free border of the new lip; and it must be specially borne in mind that the elastic character of the mucous membrane renders it very liable to contract, even to the extent of half its width. Professor Tripiet recommends the use of a narrow bistoury for transfixion of the flap after the limits of it have been incised, but does not negative the use of scissors for the purpose, though these are slower in their work. The flap having been thus detached after the skin-flaps have been prepared for its application, it is carefully attended to by an assistant, and the hæmorrhage, which is always considerable, is arrested. The flap is then adjusted, and its anterior border sutured by fine wire to the outer border of the new lip. The posterior border is only slightly held in position. To catgut he objects on account of the uncertain manner in which it acts, according to its newness or mode of preparation. Silk he does not mention.

The dressing of the wound preferred by Professor Tripiet depends upon the case. For simple cases he uses boracic lint covered with boracic ointment; for more complicated cases, where the parts do not come well together, he uses iodoform gauze, sometimes the adherent kind, which prevents the parts from being displaced, sometimes the non-adherent kind, to allow better drainage; but this dressing must be fixed, even if one have to transfix both dressing and lip with a catgut suture. In some cases, it may be necessary to feed the patient for a time with a tube passed by either the mouth or the nose.

Before commencing any operation for cancer of

the lip, he removes any glands which can be felt as suspiciously enlarged, and for this purpose he first transfixes them with a tenaculum, and, when they are exposed, seizes them with vulsellum forceps, as they readily escape, and important neighbouring structures are thus better protected.

Three cases are given in which the operation has been performed by Professor Tripiet. In the first, that of a man, aged 52, the whole free border of the lower lip was occupied by an epithelioma, and induration extended backwards to about a third of an inch from the gum. This left so narrow a strip of sound mucous membrane to cover the centre of the new lip that the result was not really satisfactory; for though this mucous membrane, obtained chiefly from the gum, healed by first intention, it melted away in a week's time, and the centre of the new lip became everted, and resembled the usual form of artificial lip. The operation performed in this and the second case was Langenbeck's, so far as the incisions for forming the new lip were concerned, with the slight modification suggested by Volkmann.

In the second case, that of a man aged 72, the greater part of the lower lip was involved in an ulcerating epithelioma, but the induration did not extend so far in. The submaxillary lymphatic glands were enlarged, and were removed in both these cases. After operation the mucous flap entirely sloughed, but the skin-flaps remained sound, and the result was the same as if no mucous flap had been retained. The patient had atheromatous arteries, and the submaxillary wound sloughed to some extent, showing the unhealthy state of the patient.

The third case (aged 66) was simpler, the growth involving only the more superficial textures along the free border of the lip, so that no extensive plastic operation was required. Glands were removed, and the lower lip taken away by two horizontal incisions, which ended towards the angles of the mouth in very acute angles. The mucous flap was obtained by transfixion after its outline had been incised, and a thread passed through each end to facilitate the raising of it. The result of the operation was complete success; and it may be noticed that peculiar care was taken to shape the new border according to artistic ideas of what a lip should be.

The success obtained in this last case has been repeated by Tripiet and, we believe, by Reverdin of Geneva, since the publication of this pamphlet.

W. W. WAGSTAFFE.

ARTICLE 1134.

GREFFIER ON PARTIAL EPILEPSY.

IT is well known that the name of partial epilepsy is given to a kind of epilepsy in which the convulsions are limited to one half of the body (hemiplegic epilepsy), or sometimes confined to a region—one half of the face, or an arm, or leg. Facts of this order, frequent in cerebral syphilis, were sometime ago carefully studied by Bravais, and at a more recent period by Charcot, Fournier, and Hughlings Jackson. M. Greffier describes very clearly the symptoms of this form of epilepsy which, though analogous to those of ordinary epilepsy, present peculiar phenomena. The convulsions attack first an arm, or a leg, or the face; they always extend in the same order, but rarely pass beyond the side originally attacked. As M. Fournier points out, the patient is witness of his own attack. The mental faculties may be im-

* *Étude sur la Restauration de la Lèvre Inférieure.* By Dr. Gustave Imbert. Lyons. Imprimerie de la Province.

paired, but the patient is conscious of his condition and of everything that happens. There is often severe pain during a paroxysm. If total loss of intelligence occur, the convulsions have a tendency to become general, and the attack closely resembles one of ordinary epilepsy.

After attacks of partial epilepsy, memory and mental faculties are to some extent impaired, or there is muscular debility. It frequently happens that there is paresis of the limbs attacked. This condition sometimes only lasts a few days or hours; but it may also be persistent, and exhibit all the phenomena of progressive hemiplegia, which, incomplete and partial at the onset, increases more and more.

Besides the usual form of partial epilepsy, M. Charcot has described two others which are very rare: a tonic form with contracture, and a vibratory form. In the tonic form the convulsions are accompanied by a peculiar stiffness in the limbs; in the vibratory form the limbs exhibit violent convulsive movements, but there are no facial spasms.

M. Grefier describes a special form of partial epilepsy exhibited by infants, generally that bordering on idiocy, which, in such cases, is symptomatic of atrophy of the cerebral hemispheres. In this special form of epilepsy the attacks gradually become less and less frequent as the child grows older; but in true epilepsy the contrary is observed. The feeble mental condition is not rendered much more feeble by the repeated attacks.

M. Grefier agrees with the investigators who have preceded him in considering that partial epilepsy is almost always an indication of a limited encephalic lesion. Therefore partial epilepsy ought not to be classed as epilepsy proper. As M. Fournier has observed, ordinary epilepsy is nearly always characterised by generalised muscular spasms. Partial epilepsy indicates a limited lesion in the cortical motor zone, arising from syphilis, injury, abscesses, tumours, or hemorrhage. All these lesions may exhibit the same phenomena, therefore partial epilepsy is no indication of the exact nature of the lesion.

In cases where the disease may be traced to a syphilitic origin the treatment is of great importance. The energetic use of anti-syphilitic remedies will probably result in cure. In other cases the treatment, though not thoroughly successful, may produce some improvements. It is the same as the treatment adopted for epilepsy proper. M. Charcot frequently prescribes bromide of potassium 8 grammes, bromide of ammonium 4 grammes, water 200 grammes. Of this, four tablespoonfuls are taken daily during the first week, and six during the second week.

W. VIGNAL.

ARTICLE 1135.

CHARCOT ON MOTOR APHASIA.

M. CHARCOT (*Le Progrès Méd.*, No. 27, 1883), in a recent clinical lecture, says that, though it is common to meet with cases of motor aphasia combined with various other affections of speech and of psychical functions, it is rare to meet with it as an isolated condition. After referring to a case given by Trousseau, he relates the following case. The patient, a male, at the present time presents no notable alteration of sensation in the paralysed limb

or in the corresponding side of the face. He has some slight diminution of the muscular sense; thus, with his eyes closed, he cannot recognise very well the position given to his fingers. Hearing, smell, and taste are unaffected; vision also is the same. There is no hemipia or diminution of the field of vision. Previously to his illness he had never suffered from his heart, but lately he has been troubled with palpitation. His heart is enlarged, the apex beating in the sixth interspace outside the nipple. There is no murmur, and the urine is quite normal. He has written, and expressed very well, a few facts about his previous condition. He writes the first day: 'When I awoke, my right side did not appear to belong to me; when the clock struck I could hear it, but could not count the strokes; I could hear people talking to me, but could not understand what they said. All this disappeared after some days. I could not read; I could see the letters, words, and sentences, but they had no meaning, yet I understood these words and phrases when read aloud to me by another person.'

This shows that at first he was affected with verbal deafness and blindness, which had, however, disappeared when we saw him first.

The power of writing was regained at the end of the fourth month. Unable to use his right hand, he trained himself by a few weeks' practice to write very well with his left; and it is noticeable that he always wrote from left to write. Still, he remains unable to speak; he can only articulate *pat, pat, ah, ah*.

There is no difficulty in assuring ourselves that this is not due to any paralysis of the tongue or lips; he moves his tongue readily in every direction; can blow and whistle. His intelligence is very little impaired, as proved by his written replies. This case shows that the proposition maintained by Trousseau and Gairdner is too absolute—i.e. the subjects of aphasia write as badly as they talk, and those who cannot talk at all are equally unable to write. He reads, and evidently understands very fairly what he reads. He can add and multiply with very fair ability. He can also hum a tune when asked to do so.

Instances have been known where musicians have lost the power of reading music.

At the same time, there is some degree of mental failure; writing and calculating require effort, and fatigue him soon. This enfeeblement of intellectual energy is the rule. Whenever there is a lesion of any part of the cerebral hemispheres, as a rule some enfeeblement of the intellectual faculties results, more especially when the lesion involves the regions which are the seat of the faculty of language. If it is true that the phenomena of ideation persist, even when language is suppressed; if it is true that the idea survives when the word which represented it is absent, it is nevertheless important to remember that thought cannot take a definite form without the intervention of some sign; the idea remains vague, indefinite, if the corresponding sign do not clothe it in a concrete objective material form. From this point of view, it is right to recognise with Trousseau and Lasèque that there is no sufferer from aphasia, however partial and limited the alteration may be, who should not be considered as the subject of intellectual disturbance.

ROBERT SAUNDEY, M.D.

ARTICLE 1136.

WEIL ON THE HEARING OF SCHOOL CHILDREN.

DR. E. WEIL, of Stuttgart (*Archives of Otolaryngology*, March 1882), remarks that, while the eyes of school children have often been a subject of inquiry, little attention has been paid to their ears. He refers to the only papers on the subject known to him, that in the *St. Petersburg Med. Wochens.*, 1878, No. 29, and that in the *Monatsch. für Ohrenheilkunde*, 1881, No. 12, besides a paper from himself in the *Wurtemburger Med. Correspondenzbl.*, 1881, No. 29. This last the author embodies in the present paper.

Von Reichard, author of the first paper, tested 1,055 children with a watch, and found that 22·2 per cent. of them heard badly. The author believes the test a lax one, as from his experience defective hearing is far more common. Besides the want of knowledge of otology on the part of the general profession, owing to the defective educational course in medical schools, he attributes this inattention to the power of hearing to the want of a good means of testing it. The watch and Politzer's acoumeter are unsatisfactory, as they have at most but two tones. For the power of hearing speech, authors are agreed that there is no test that equals speech itself, and that the best measure of the hearing power is the distance at which a whisper can be heard. He quotes Walf, Chimani, and Hartman, as agreeing to take 20 to 25 metres as the distance at which a whisper should be heard by normal hearing. This distance he accepts, but subject to many considerations; whether the words chosen abound in vowels, or in consonants, or in the letter *s*; whether they be familiar and easily guessed at; a sentence being more easily heard than a single word. So also much depends on the articulation, on external noises, the state of the atmosphere, &c. Therefore his results are to be taken as only approximate, but he hopes they may draw public attention to the subject.

The 5,905 children examined were attendants at fourteen different schools. They were of various social standing, from town and country, and some from manufacturing districts. They were of both sexes, and of all school ages. Information so far as available was procured about each child, its age, height, whether it had suffered from earache, noises in the ear, otorrhœa, or the exanthematous fevers. The ears were examined by a plain mirror, and any peculiarity noted, cerumen, pus, perforation, &c.; and then the hearing power was tested, any variation from the normal being carefully estimated as to its amount.

The external peculiarities noted are given in the following table:—

	Girls.	Boys.	
Wax in the meatus	6·3	4·0	per cent.
Impacted wax	8·7	6·1	„
Posterior fold	6	8·2	„
Suppuration	2·3	1·9	„
Chalky deposits	0·9	1·5	„

Wax in the meatus includes cases where the amount was so great as to obscure part of the drum; impacted wax where the entire drum was obscured by it. He points out the preponderance of this among the girls.

The 'posterior fold' spoken of is not defined. It would seem to be a prominent band at the posterior border of Shrapnel's membrane. It is said to be in many of the cases of recent origin. It was some-

times found on both sides. A large number of the cases showed defective hearing.

Suppuration includes only cases where pus issued from the middle ear through perforations in the membrane. Many children quite healthy in this respect stated they had had discharges at some period. Deposits of chalk were of various size and shape. Few of these cases gave a history of otorrhœa; but many of noises in the ear. Information regarding the exanthemata was not generally satisfactory. It is given as regards one school, of which the pupils were better informed. They numbered 1,105.

The report is as follows:—

Scarlet fever	5·15 per cent.
Diphtheria	1·81 „
Measles	31·85 „
Scarlet fever and measles	10·4 „
Scarlet fever and diphtheria	·90 „
Measles and diphtheria	2·70 „
Scarlet fever, measles, and diphtheria	3·25 „

Nearly half (479) of the number had escaped these ailments altogether, and the author contrasts the states of the two classes as follows:—

	Wax.	Post-Fold.	Sup.	Defective hearing.
Those who had had these diseases ...	16·7 ...	4·1 ...	2·5 ...	30·5
Free	14·2 ...	5·2 ...	2 ...	33·8

This is an unexpected result, as, other things being nearly equal, those who had had one or all of these diseases heard better in the proportion of 3·3 per cent. than those who had escaped. Polypi and foreign bodies in the ear were very rare, while cicatrices and thinned points in the drum-membrane were frequent even in the very young.

The foregoing figures relate to the full number (5,905 children) examined. In regard to their hearing power, several have to be excluded for their extreme youth and other causes. Of the 5,490 children tested, and of which the statistics can be given, 1,884, that is 34·27 per cent., showed defective hearing. This may appear a high proportion, but it does not represent the full amount. Dr. Weil remarks that when the whisper was not heard at 12 metres, the degree of deafness was generally perceptible, and had been complained of, and the space at his disposal in the several schools was not in all cases large enough to test the cases up to that distance. Excluding, therefore, all schools tested at less distance than 12 metres, there remain 3,378 scholars among whom there were found 1,317, or 38·98 per cent., with defective hearing. Finally, if we include only those institutions where there was means of testing to the full 20 metres, there appear of the 1,974 children so tested so many as 947 defective, that is, a proportion of 47·56 per cent. It may be a question as to whether his standard of 20 metres is not too exacting. If it be fair, the result is that nearly half the young people of the present day are more or less deaf.

The following are the results in a tabular form, giving each sex separately.

Total number examined at greatest available distance up to 20 metres.			
	Found defective.	Per cent.	
Girls..... 2,642	893	33·8	
Boys..... 2,848	989	34·72	
Total... 5,490	1,882	34·27	

Number tested and found unable to hear a whisper at 20 metres.

		Found defective.	Per cent.
Girls.....	1,959	503	47.47
Boys.....	914	444	48.53
Total...	1,973	947	48

Number tested and found unable to hear a whisper at 12 metres—noticeably deaf.

		Found defective.	Per cent.
Girls.....	2,182	484	22.18
Boys.....	1,924	346	17.9
Total ..	4,106	830	20.02

Number tested and found unable to hear a whisper at 2 metres, the shortest distance tried.

		Found defective.	Per cent.
Girls.....	2,446	55	2.2
Boys.....	2,198	34	1.54
Total...	4,644	89	1.90

This includes all cases defective, whether in one or both ears.

Von Reichard, in his paper mentioned above, states that the hearing of the elder children was more defective. This observation the author finds verified by his cases. The following tables, compiled from his figures, illustrate this point clearly. The numbers given include the attendants at four large schools, two for boys and two for girls. They are given according to their ages, and in the three stages of deafness before given as prominent, viz., imperfect hearing, in which the whisper is unheard at 20 metres, perceptible deafness 12 metres, and the greatest degree of deafness 2 metres. Cases defective in one or both ears are included as before.

Girls' Ages, Years.	No. at each Year.	At 20 m. per cent.	At 12 m. per cent.	At 2 m. per cent.
7	121	36.3	5.7	1.6
8	136	38.2	10.3	1.5
9	143	44.75	17.38	4.0
10	161	41.6	20	.6
11	173	39.9	13.8	1.1
12	157	64.3	28	2.5
13	168	63	34.3	1.8

Boys' Ages, Years.	No. at each Year.	At 20 m. per cent.	At 12 m. per cent.	At 2 m. Nos.
8	93	23.6	1	0
9	151	28.1	2	0
10	152	38.2	3.3	1
11	152	42.1	4	2
12	133	60.9	9.8	2
13	168	73.6	13.7	6
14	45	75.5	13.3	0
15	21	76.1	14.3	0

These numbers are sufficiently large for an induction, and certainly appear to justify the remark as to the damage the ears sustain from year to year of life.

The author remarks in his summary that he was not prepared to find defective hearing so general. Very few of the children had had any treatment for their ears, and many affected to a great degree were quite unaware of their infirmity. Not only the younger children heard better than the older, but also the richer than the poorer; and he especially speaks of the well-ventilated dwellings of the pupils at one school as acting favourably on, that is preservative of, their hearing. All these facts point to the extreme delicacy of the ear, its sensibility to unfavourable conditions, and its insidious decay. Hence he very warrantably concludes that 'the ear requires

much more attention on the part of physicians and authorities, especially those connected with schools, and also on the part of parents, than has heretofore been conferred upon it.' He adds that the medical licensing bodies should make the study of diseases of the ear an indispensable qualification for practice, and that governments should take a livelier interest in this matter as it affects largely the health and usefulness of the commonwealth. He instances the fact that in the years 1874-78 the armies of Prussia and Württemberg lost 1,883 soldiers from deafness, and infers that the number of men unable to serve from this cause must be very large.

Another practical deduction which he makes deserves particular attention. He recommends that, owing to the amount of unobserved deafness in schools, every inattentive child should have its ears examined. Deafness not merely directly hinders the child's progress, but the extra strain on its attention in following the teacher soon induces fatigue. The child grows tired and absent-minded, and is consequently misjudged—considered careless and incorrigible, when merely hard of hearing. Teachers should be warned of this difficulty with their pupils, and instructed how to test the infirmity, so that it could be brought under notice, and probably in many cases remedied. He also suggests that in large schools an aural practitioner should be specially attached, in order that the ailing pupils might have the benefit of treatment without a special charge, which might be prohibitive, or excuse neglect on the part of poor parents.

The author thus hits more than one blot on our present educational system, and it is to be hoped his paper will not fall dead on an inattentive public, but lead to some practical result.

W. LAIDLAW PURVES.

ARTICLE 1137.

VON PFUNGEN ON LOCALISATION OF THE DISORDERED MOVEMENTS OF THE EYES IN MENINGITIS.

In the *Wiener Medicinische Blätter*, Feb. 22, March 1, 8, and 15, Dr. von Pfungen writes on the difficulty of localising the lesion in disordered movements of the ocular muscles in meningitis. The cause has been referred to the surrounding of the nerves at their exit from the base of the brain by the exudation, but that will not serve as an explanation for all cases. Sometimes there is no exudation at the base, and sometimes the nerves cannot be found to be implicated in what is present. In such cases, the cause may be found in a dilatation of the aqueductus Sylvii by the exudation, so that the pressure has operated on the origin instead of on the periphery of the nerve. The complication of the symptoms arises from the fact that pathological regions are determined by the distribution of the vessels, when the effect of pressure is considered, and they do not correspond to the regions of function. Peripheral paralysis cannot be thoroughly studied without taking into consideration the fluid in the cerebral fissures. In a case of cerebral abscess with bronchiectasis, trochlear paralysis existed without any abnormality at the base, but with an abscess in the middle brain.

The author cites three cases. The first patient, a male, entered the psychological department of the hospital in a state of stupor, only glancing up momentarily when his name was mentioned, and

unable to follow with his eyes the flame of a candle. He resisted strongly any passive motion of the neck, back, or extremities. There was complete facial paralysis on the right side; the left pupil was somewhat wider than the right; both were very small, but reacted to light. There was some difficulty in turning both eyes towards the right, and a constant slight strabismus divergens. Patellar and sole reflexes were well marked on both sides. The nervous symptoms increased, with greater weakness on the right side, and symmetrical paralysis of the fourth nerve, until death occurred on the fifth day. At first sight nothing special was observed at the necropsy with regard to the exudation; but, on careful examination, some unevenness and opacity of the pia mater over the orbital surfaces were discovered, and slight injection of the basilar meninges as far as the tuber cinereum, involving the right oculo-motor nerve. The posterior surfaces of the optic nerves were slightly adherent, as also the facialis and abducens in the pons Varolii, and miliary tubercles were seen here and there. The meninges in the Sylvian fissure were deep red, adherent, and infiltrated with miliary tubercle, especially on the left side. The same conditions were seen in the transverse fissure, over the corpora quadrigemina, and on the anterior part of the vermis.

The second patient, a female, had suffered for nine days from pain in the head and chest and loss of appetite. For three days she had been crying out, and disturbing the other patients in the medical department; and on admission into the psychological side she was delirious, giving signs of pain on being touched, and had stiffness of the neck, with right-sided ptosis and facial paralysis, the left pupil being larger than the right. She had had a child four months before, and had coughed a great deal ever since. On the second morning after admission, the nervous symptoms being somewhat increased, the movements of the eyeballs were found to be restricted in almost every direction; and, with a gradual rise in the temperature, which had been normal on admission, death occurred on the fourth day. Tubercular meningitis was found all over the base of the brain except on the crus cerebri, and grey tubercles were seen along the course of the vessels in the fissures, with acute internal hydrocephalus and maceration of the ventricular walls. The two anterior bodies of the corpora quadrigemina were broken down and softened.

The third case, a male, was transferred from the medical department on the evening of his admission, on account of restlessness and attempts to escape. His father and mother had died of chest-disease, and he himself had suffered from cough for two years, and more particularly for two months. For four days he had been delirious during the night, and unconscious during the day. The breathing was too shallow to allow much crepitation to be heard; the patient was very restless, rolling about in bed. The left eyelid hung somewhat lower than the right; both pupils were dilated, the right not reacting to light; the movements of both eyeballs were perfect, but there were some deviations of the right eye independent altogether of the left. Temporary aphasia was present on the day after his admission, but soon passed off. Death occurred on the sixth day, and signs of tubercular meningitis were found extending from the optic nerve over the medulla oblongata, and in the cerebral fissures, accompanied by œdema cerebri. The spleen was acutely enlarged,

and acute miliary tubercle was found in lungs and kidneys, with phthisis of the pulmonary apices.

These three cases show the importance of the presence of exudation in the cerebral fissures; and the temporary nervous symptoms which were seen in one or two cases point to the injury having been of a temporary nature, whether anaemia, œdema, or hyperaemia.

A patient who had had a large head in childhood, and had since squinted, was admitted with acute hydrocephalus. He sought admission to the hospital on account of bloody diarrhoea, which continued more or less till his death, which occurred in twenty-six days. During the time he was under observation, dilatation of the pupils occurred twice, with recession of the near point of sight; and, at the same time, the strabismus, which was on the right side, upwards and outwards, disappeared, to return with the contraction of the pupils, and the return of the near point to normal. At the necropsy, medullary carcinoma was found in the sigmoid flexure, with secondary nodes in the liver, obsolete tuberculosis of the lungs, œdema of the brain, and opacity of the meninges.

In a case diagnosed as syphilitic meningitis (chronic) there was dissociated paralysis of the eyes, the one moving outwards and upwards when the other was fixed and brought to the middle line. Neither could be brought to convergence.

In another case of syphilitic meningitis there was nystagmus on both sides, with alternate paralysis of the internal recti, and inequality of the pupils, also alternate. Both those cases left the hospital uncured.

Such a course of symptoms must be caused by a central, not a peripheral lesion.

In concluding his article, Dr. von Pfungen gives a case where the symptoms resulted from irritation of the nerve-centres, there being nystagmus well marked on both sides, with general hyperaesthesia. There was diffuse sero-fibrinous meningitis over both hemispheres, with exudation in the Sylvian fissures and over the chiasma.

The cases related have shown three situations in which inflammation of the meninges may cause disturbance of the ocular movements—(1) over the base; (2) in the fissures, where exudation affects the trunk of the trochlearis, the nuclei of the nerves, the centre of co-ordination, and the system of association; (3) on the cortex of the brain, where all the movements can be restricted. ALICE KER, M.D.

ARTICLE 1138.

SKLIPOVSKY ON THE CHANGES IN FAT-TISSUE IN PHLEGMONOUS AND OTHER INFLAMMATIONS.

To study this subject, Dr. Pavel Sklifosovsky (*Sz. Petersburg Inaugural Dissertation*, 1882), experimenting in Professor N. P. Ivanovsky's laboratory, injected into the subcutaneous cellular tissue of dogs various irritant fluids, such as croton-oil, tincture of iodine, one-tenth per cent. solution of corrosive sublimate, tincture of cantharides, and pus. He also examined the following pathological specimens: six cases of pericarditis; epiploic appendices from four cases of peritonitis; a stump from a case of amputation of the thigh; one case of circumarticular phlegmon of the knee-joint and one of the ankle-joint; two cases of phlegmon of the thigh and heel;

one frost-bitten ulcer; and one leprosy. At various periods (from twenty-four hours to four or five weeks after injection) pieces of the adipose tissue were cut away, and immersed first in one-eighth to one-tenth per cent. solution of osmic acid, and then in alcohol. In many cases, however, the author employed Ranvier's method of interstitial injection, for which he used either solution of nitrate of silver (1 to 1,000), or of osmic acid (1 to 300), or chinoline-blue. In some of the cases he stained fat by means of solution of alkanet (after Lantchitch's method, *vide* *Journal Normal et Patol. Histolog.*, 1871, Vol. iv.). The nuclei were coloured by picro-carmin, hæmatoxyline, purpurine, or Bismarck-brown. The author, on the ground of careful microscopical examination of very numerous preparations, furnishes the following sketch of the alterations produced in the adipose tissue by injections of irritant fluids.

Powerful irritants, as croton oil and tincture of cantharides, give rise to violent inflammatory process, accompanied by hæmorrhages. Weak irritants, such as one-tenth per cent. solution of corrosive sublimate, or pus, produce vasculo-granular inflammation with abundant accumulation of leucocytes in the interstitial (interlobular) connective tissue. From the fifth day after an injection, there appear atrophic changes of the fat-cells: the latter decrease in bulk, their capsules shrivel, the protoplasm becomes thinner, and the fat is replaced by vacuoles containing serous fluid; the regressive metamorphosis gradually advances, and on the thirteenth or fifteenth day the cell-capsule disappears. From about the eleventh day the migrated leucocytes begin to be transformed into connective tissue, which, growing from the interlobular septa, penetrates between the adipose cells, compresses them, and causes their atrophy. The vessels become dilated; their epithelioid elements swell and proliferate. Absorption of fat from the adipose cells goes on through the lymphatics and blood-vessels. Already twenty-four hours after an injection, oily drops may be detected both in the lumen and in the walls of a vessel. The leucocytes also contain minute oily droplets. Fatty particles, absorbed by the lymphatic vessels, are carried to the lymphatic glands, where they accumulate (chiefly in the sinuses), and may be seen as points, chains, &c. Fatty embolism in phlegmonous inflammation is observed only in the locality of an injection and around it. After four or five weeks, at the spot of recent inflammation, there are seen young connective tissue and remnants of adipose cells containing fat, either in the centre or somewhere on the periphery; at the same time, there proceeds a regeneration of adipose cells, serous vacuoles being gradually refilled with fat. In acute inflammation, the author did not see either any proliferation of nuclei (*Wucheratrophie* of Flemming), or appearance of giant-cells.

The general conclusions drawn by Dr. Sklifosky both from his experiments on dogs, and examination of human pathological specimens, are summed up by him thus. 1. In acute inflammation of the subcutaneous adipose tissue, the alterations of the fat-cells consist in diminution of the latter in size, shrinking and ultimate disappearance of the cellular capsule, and formation of a serous vacuole replacing the fatty contents of a cell. 2. Similar regressive changes are observed in acute inflammatory processes in the pericardium, omentum, &c. 3. In chronic inflammation, the changes of the fat-cells

consist in hypertrophy and proliferation of their nuclei, and swelling and segmentation of their protoplasm. 4. Absorption of fat in phlegmonous inflammation goes chiefly through the lymphatics. 5. In limited phlegmonous inflammation of the subcutaneous adipose tissue, fatty embolism is not accompanied by any changes in the functions of the heart or lungs. V. IDELSON, M.D.

SURGERY.

RECENT PAPERS.

1139. KRANZFELD. — On the Radical Treatment of Varicocele by Intervascular Injections of Alcohol. (*Vracheb. Vidom.*, 1882, No. 540, pp. 3497-9.)

1140. KNIE, A. D. — On a Case of Successful Gastrostomy in Cancerous Stricture of the Oesophagus. (*Letopis Khirurgicheskoho Obshchestva v Moskve* [= *Annals of the Moscow Surgical Society*], 1883, No. 3, pp. 100-106.)

1141. MAXIMOFF, V. — A Case of Traumatic Hæmorrhage into the Knee-joint Cured by Aspiration. (*Vracheb. Vidom.*, 1882, No. 536, pp. 3431-3.)

1142. GAYOV. — The Treatment of Hæmorrhoids. (*Recueil de Mém. de Méd. et de Chir. Militaires*, May, June, 1882.)

1143. ISRAEL. — Nephrectomy for Renal Calculus. (*Deutsche Med. Wochens.*, June 13.)

1144. HADLICH. — Oesophagotomy in a Case of Extreme Dysphagia. (*Deutsche Zeitschrift für Klin. Chir.*, Band xvii.)

1145. VOELKEL. — A Case of Oestrus Hominis. (*Berliner Klin. Wochens.*, April 2.)

1146. CREDE. — Extirpation of a Diseased Spleen. (*Archiv für Klin. Chir.*, Band xviii.)

ART. 1139. *Kranzfeld on the Radical Treatment of Varicocele by Intervascular Injections of Alcohol.* — The writer describes (*Vracheb. Vidom.*, 1882, No. 540) a simple and easy method of treatment of varicocele which had been successfully practised in seven patients by Dr. G. T. Dukhnovsky, of Odessa Military Hospital. The method consists in injections of 85 to 90 per cent. alcohol into the subcutaneous cellular tissue surrounding the spermatic veins. The needle of a Pravaz's syringe is introduced under the skin at any point facing the dilated veins, and is brought, with the help of the operator's left hand, as nearly as possible to the diseased vessels; then the syringe is slowly emptied. The injection causes only moderate burning pain, lasting from half-an-hour to three hours. On the next day after the operation there appears a considerable, but almost painless, swelling of the parts, which is at first soft, then becomes tender. The injections are repeated at three or four days' intervals, from three to ten times, according to the demands of the case. Finally, the spermatic veins are transformed into thin hard cords. In all the seven patients of Dr. Dukhnovsky cure was complete (at least the patients remain quite well as yet). The same method proved equally efficacious in two cases of dilated veins of the leg. [Dr. Kranzfeld seems to regard Dr. Dukhnovsky as an originator of the plan described. If so, he is deeply mistaken. Subcutaneous injections of alcohol in varicocele (as well as in varices in other regions of the body, in angioma, &c.) were recommended by Dr. Schwalbe in Virchow's *Archiv*, 1879, Vol. 76; see also the LONDON MEDICAL RECORD, 1879, Dec., p. 489.—*Ref.*]

1140. *Knie on a Case of Successful Gastrostomy in Cancerous Stricture of the Œsophagus.*—In the *Letopis Khirurgicheskaho Obshchestva*, No. 3, pp. 100-6, Dr. A. D. Knie gives the details of a case of successful gastrostomy which he, as usual, performed, after Howse and Fenger's method (in two stages separated by an interval of eight days), under strict antiseptic precautions. The patient, a timber-dealer, aged 46, began to feel some difficulty of swallowing about four months before the operation. At the time of the latter he was able to swallow only small quantities of fluids. An œsophageal sound met an impervious obstacle at the distance of 42 centimètres (16½ inches) from the incisors. During the last months there appeared emaciation, general weakness, and constant pain in the region of the ensiform process of the sternum, in the back-bone, and in both sides. The patient recovered from the operation without any fever, and in the first six days after the opening of the stomach, gained in weight four pounds. A month later, he went home in a satisfactory condition. [This is the third case of gastrostomy successfully performed by Dr. Knie in cancerous stricture of the œsophagus. His first patient (see the LONDON MEDICAL RECORD, March 1883, p. 81) lately died, having gained by the operation exactly eight months of life. His second patient lived eighty days after gastrostomy. In the *Vratchi*, No. 9, 1883, p. 140, and *Mediz. Obozr.*, March 1883, Dr. Knie's fourth case is mentioned. At the time of its publication (a month after the operation), the patient, aged 62, was still living.—*Ref.*]

1141. *Maximoff on a Case of Traumatic Hemorrhage into the Knee-joint Cured by Aspiration.*—In the *Vratcheb. Vedom.*, 1882, No. 536, p. 3431, Dr. V. Maximoff gives notes referring to the following case. The patient, a soldier, aged 22, of weak build and health, had contused his right knee. Two days later he was admitted to the hospital, presenting an extensive globular, tense, fluctuating swelling of the joint. The patella was floating; both active and passive movements were extremely painful and limited. On the second day after his admission, the evening temperature rose to 39° Cent. (102·3° Fahr.); on the third, to 40·7° Cent. (105·5° Fahr.). Swelling, pain, and tension increased; there appeared sleeplessness, loss of appetite, general debility, headache, delirium, diarrhoea—all in spite of the use of ice-bags, leeches, iodine, quinine, pressure by a roller, and similar means. On the fourth day, the author resorted to antiseptic aspiration by means of Dieulafoy's apparatus. Three ounces of dark fluid blood were drawn off. Pain disappeared in a few hours. On the next morning the temperature fell to 38° Cent. (100·4° Fahr.), and a day later to the usual level. After two weeks' treatment by moderate pressure (Martin's elastic bandage) all traces of the serious injury disappeared.

V. IDELSON, M.D.

1142. *Gavoy on the Treatment of Hemorrhoids.*—Dr. Gavoy has cured obstinate cases by freezing the hæmorrhoidal vessels, thus obtaining coagulated material isolated from the circulation (*Recueil de Mém. de Méd. et de Chir. Militaires*, 1882, Mai, Juin, p. 317). A linen band is rolled round the pedicle of the tumour, which determines stasis of the blood. The linen band is left untied, and the tumour becomes elastic, like an India-rubber ball. Ice is then applied all over the surface in order to lessen the volume. After a few moments have

elapsed its surface becomes corrugated, and in a short time it is reduced. The patient need not be anesthetised. The result, according to Dr. Gavoy, is immediate. Care should be taken to tightly bind the pedicle of the tumour in order to insure stasis of the blood. This method might be adapted to all vascular tumours.

W. VIGNAL.

1143. *Israel on Nephrectomy for Renal Calculus.*—At the meeting of the Berlin Medical Society, on June 6 (*Deutsche Med. Wochenschr.*, June 13), Herr Israel showed a kidney which he had removed from a young woman, who had shown symptoms of renal mischief soon after the birth of her first child. The cause was found to be a renal calculus, but the preparation was chiefly remarkable from the fact that only the upper part of the kidney, in the pelvis corresponding to which the stone was impacted, was affected. The calyx of the lower portion seemed to end separately in the ureter, and consequently that part of the kidney was free from disease.

ALICE KER, M.D.

1144. *Hadlich on Œsophagotomy in a Case of Extreme Dysphagia.*—H. Hadlich (*Deutsche Zeitschr. für Klin. Chir.*, Band xvii., S. 138, and *Centralbl. für die Med. Wiss.*, March 17) performed œsophagotomy in the case of a labouring man, aged 60, who for nearly a year had suffered from difficulty in swallowing, and in whom the contraction of the œsophagus was so considerable that a sound could not be made to pass the cricoid cartilage. After the operation, a button-sound could be passed the constricted portion, and gradually to dilate it. In spite of the daily use of the bougie, which the patient himself learnt how to use, death followed the operation in about a year, through return of the dysphagia, which at last prevented the passage of anything. An examination *post mortem* was not made; the nature of the lesion, therefore, remains doubtful. Dr. Hadlich surmises that this might have been a case of dysphagia occasioned by chronic thickening of the cricoid cartilage. The success of the operation, Hadlich further remarks, depends upon the possibility of maintaining a permanent opening for the ingesta.

1145. *Voelkel on a Case of Œstrus Hominis.*—Dr. Voelkel, of Berleburg, in Westphalia (*Berliner Klin. Wochenschr.*, April 2), was consulted, on Feb. 21, 1882, on the case of a lad, aged 13, who complained of stiff-neck and severe pains on the right side of the neck and head. On the 27th his father reported that he was much better, a 'worm' having been emitted from the skin below the right eye. The cylindrical larva was about 1½ centimètres in length, and 2 millimètres in diameter, and moved actively for the space of half an hour. Two other 'worms' had been evacuated, but had not been preserved. The patient, on March 12, presented himself with a hard white nodule about the size of a pin's head on the right cheek. This was not accompanied by inflammatory redness. The patient's brother stated that this had commenced with a small patch of redness of the skin, with tenderness to touch; that a small opening appeared, from which a few drops of watery fluid had escaped, and the larva was to be seen. By gentle pressure it was easily dislodged. On the day following another was removed. Some pain and tenderness remained for eight days after the removal of the parasite, and gradually subsided, the general health continuing unimpaired. The boy remembered having slept in the open air frequently in the preceding summer,

and having suffered from the stings of insects. It is remarkable that these parasites should have remained under a healthy skin without causing eruption or wound of any kind. Dr. Voelkel submitted the larvae to the opinion of Professor Brauer, of Vienna, with the result that Dr. Brauer entertained not the slightest doubt that the parasite was the larvae of the oestrus hominis—the larva of the gadfly. Larvæ of insects of the same order ('Estridae') are well known by their effects on man in tropical America.

1146. *Crede on Extirpation of Diseased Spleen.*—B. Crede relates the following case (*Archiv für Klin. Chir.*, Band xxviii.; and *Centralbl. für die Med. Wiss.*, June 23). A tumour, of the size of a child's head, formed in the region of the spleen in a man who had received a bruise in that part. Distinct fluctuation was perceptible in the swelling, the diagnosis of which was between splenic cyst and hydronephrosis. Puncture through the rectus abdominis of the left side gave exit to about 1,350 grammes (= about 48 oz. English) of a clear yellow fluid containing crystals of cholesterine. The membranous walls of the cyst, together with the spleen, were removed through a section extending from the ribs to the crest of the ilium; the vessels of the pedicle were tied with a double catgut ligature, then divided, and allowed to fall back into the abdomen. No drainage-tube was used. The wound was closed, and dressed with antiseptics. The microscopic texture of the spleen was normal. Notwithstanding that the wound continued in a favourable state, the general condition of the patient became from day to day more and more anæmic; so much so, that in two months from the operation the proportion of white to red blood-corpuscles was one to three or four. The proportion then began to return to the normal standard, so that in about four months and a half the patient had entirely recovered all the effects of the operation. As a commentary upon this case, the author has collected the accounts of thirty extirpations of spleen, of which sixteen proved fatal. Of the remaining fourteen, nine recovered, having been cases of prolapse through wounds of the abdomen. Accurate examination of the blood was reported only in five cases, with the following results. 1. In the adult, the spleen may be removed without detriment. 2. Removal of the spleen causes temporary disturbance of the blood-making function. 3. This disturbance is compensated by activity of function of the thyroid body and of the red marrow of the bones. 4. The spleen contributes to the formation of the white blood-corpuscles.

W. B. KESTIVEN, M.D.

MEDICINE.

RECENT PAPERS.

1147. RUSSELL.—The Site and Mechanism of the Cardiac Murmurs in Debility and Anæmia. (*Brit. Med. Jour.*, June, p. 1053.)

1148. MARTIN.—A Case of Latent Pericarditis with Effusion. (*Brit. Med. Jour.*, June, p. 1174.)

1149. ANDERSON.—Foliosis Rheumatica. (*Brit. Med. Jour.*, June, p. 1103.)

1150. FRASER.—Obstruction of the Bowels. (*Ibid.*, June, p. 1176.)

1151. BUNTON.—Complete Suppression of Saliva after Mumps. (*Ibid.*, June, p. 1087.)

1152. POORE.—Two cases of Splenic Leucocythæmia. (*Lancet*, June, p. 1081.)

1153. STEVENSON.—A Case of Persistent Hiccough. (*Ibid.*, June, p. 1043.)

1154. HARRISON.—Orchitis with Slough of Testicle after Typhoid Fever. (*Lancet*, June, p. 997.)

1155. WEISS.—So-called Symmetrical Gangrene. (*Centralblatt für die Med. Wiss.*, March 17.)

1156. CAHN.—A Peculiar Form of General Atrophy following Diphtheria. (*Centralbl. für die Med. Wiss.*, June 23.)

1157. SCHAEFFER.—The Early Diagnosis of Tuberculosis. (*Deutsche Med. Wochens.*, May 23 and 30, and June 6.)

1158. BÜLAU.—The Danger of Operating for Hydro-pneumothorax in Phthisical Patients. (*Ibid.*, June 6.)

1159. PARK, G.—A Case of Enteric Fever with Aberrant Temperature Curve. (*Glasgow Med. Jour.*, July.)

1160. AMALIO.—Pernicious Intermittent Fever: Choleraform. (*El Jurado Med. Farmaceut. ; Revista de Med. y Ciruj.*, May 22.)

1161. ESMINA Y CAPO.—Clinical Conception of Acute Pneumonia as the Base of Treatment. (*Rev. de Med. y Cirujia Pract.*, Jan. to June, 1883.)

ART. 1147. *Russell on the Site and Mechanism of the Cardiac Murmurs in Debility and Anæmia.*—Dr. W. Russell, in the *Brit. Med. Jour.*, June 1883, p. 1053, contributes some valuable remarks on cardiac murmurs in debility and anæmia. The author starts by contending that in debility and anæmia the heart shares in the morbid condition, the result being relaxation of its muscular structure, and consequent dilatation of its cavities. The murmur present in cases of anæmia has long been explained to be due to the altered physical properties of the blood, but more recently Dr. G. W. Balfour has offered an explanation, placing the murmurs partly in the domain of dilatation murmurs. In the *Brit. Med. Jour.*, Oct. 28, 1882, Dr. D. Macalister brought forward the work done by Ludwig and Hesse, demonstrating the manner in which regurgitation may take place in a debilitated heart. Notes on seven cases are given by the author, in support of the theory that the cardiac murmurs are explained wholly by the facts of dilatation and regurgitation. The accentuation of the pulmonary second sound is taken to indicate an abnormal accumulation of blood behind the mitral orifice; with reference to the murmur in the second left space, it is stated that a consideration as to where it is produced need only be confined to the claims of the pulmonary artery and the left auricular appendix. Observations are given from *post mortem* examination of six cases of dilatation of the heart, where the organs were examined *in situ*, and it was seen that the left auricular appendix was invisible from the front, and deeply buried behind the root of the pulmonary artery and adjoining ventricle, thus interfering with the acceptance of the auricular appendix theory. In clinical proof of the popular belief that the pulmonary artery is the seat of the murmur, tracings are given, some taken from the site of pulsation and murmur in the second left space, others from the third left space with different pressures. Having come to the conclusion that the murmur can only have its site in the pulmonary artery, the question is considered as to how it is produced there. Some time ago, the author read a paper on this subject before the Medico-Chirurgical Society of Edinburgh, and explained that the murmur heard in the pulmonary artery was owing to the dilatation of the left auricle, and the instantaneousness of its diastolic fulness, due to its imperfect emptying into the ventricle

on the one hand ; and, on the other hand, from the volume of blood pressing into it from the surcharged pulmonary veins, the pulmonary artery was during ventricular systole compressed by it, thus causing the murmur. Further, the author contends that in more advanced debility the murmur which appears in the third and fourth spaces is a tricuspid regurgitant murmur. [In addition to the numerous papers referred to in the *Medical Digest*, sect. 780 : 2, bearing upon this subject, the following articles published since the appearance of the last edition of the *Digest* may be consulted with interest. *Brit. Med. Jour.*, March 1882, p. 352 ; *Edinb. Med. Jour.*, Aug. 1882, p. 130 ; *Practitioner*, Jan. 1883, p. 1 ; *Lancet*, March 1882, p. 439, Jan. 1883, pp. 92, 131.—*Rep.*]

1148. *Martin on a Case of Latent Pericarditis with Effusion*.—Dr. J. W. Martin, in the *Brit. Med. Jour.*, June 1883, p. 1174, records a good example of the insidious and unsuspected onset of pericarditis, accompanied by effusions into the pericardial sac. A man, aged 29, consulted Dr. Martin for dyspnoea, and a troublesome cough. The patient had for some time complained of rheumatic pains in the shoulder and arm, attributed to living in a house where there was always three or four inches of water in the ground floor. On physical examination, nothing could be detected in the lungs to account for the patient's symptoms. The heart, however, was not healthy; there was slight tenderness from percussion over the cardiac area; the area of cardiac dullness was much increased; the first sound was inaudible, the second was heard very faintly towards the base. Over the whole surface of the heart and well round into the axilla, a well-marked double friction-murmur was heard, faint towards the apex, low and rasping at the base. There was no pyrexia. The treatment ordered was a blister over the heart and a mixture of bicarbonate of potash, iodide of potassium, digitalis, and ammonia. In the course of about eight days the patient improved rapidly; he lost the dyspnoea and anxious expression of the face. He was free from pain, ate well and slept well, and passed plenty of urine. The dullness over the cardiac region remained unchanged, also the friction-murmur. Dr. Martin remarks on the insidious onset of this case. The serous linings of the visceral cavities, and the envelopes to their contents, must be looked upon in the light of lining membranes of joints; and in persons with any of the leading cachectic taints—gout, rheumatism, tubercle, &c.—these membranes may become affected, and be the first, and, indeed, the sole, manifestation of the constitutional diathesis.

1149. *Anderson on Peliosis Rheumatica*.—Dr. McCall Anderson, in the *Brit. Med. Jour.*, June 1883, p. 1103, contributes a lecture delivered by him at the University of Glasgow, on the affection termed peliosis rheumatica, also called purpura rheumatica. The disease is generally met with in young persons under thirty, and in those who have apparently been previously in good health. The disease is characterised by pains in the joints, with swelling and slight fever. After a few days, a crop of hemorrhagic spots comes out, and they pass through the same stages as in a black eye. The disease is often kept up, owing to the development of successive crops of spots, each crop being accompanied by a recurrence of the fever and joint-affection. The whole duration of the disease may be from weeks to months, or rarely even years. Sometimes the spots may be mistaken for scurvy; but the previous diet of the patient, together with the state of the gums and the absence

or anæmic pallor, will help one to diagnose this affection. Sometimes the disease is complicated with the development of bullæ, and a case illustrating this complication is noted. The extravasations of blood are sometimes preceded by little solid elevations or papules, so that the disease seems to correspond with the eruption described by Willan as 'lichen lividus.' In the treatment of this affection, great attention must be paid to the general health and to the digestive organs. When this has been done and the affection persists, a course of turpentine may be tried, in doses of ten to thirty minims three times a day, or of liquid extract of ergot (in doses of half a drachm every four hours), on the principle of contracting the small blood-vessels of the skin. In chronic cases, arsenic may be tried with benefit. From this it may be seen that Dr. Anderson does not agree with Hebra, who wrote: 'We have no means either of shortening its course, or of preventing the possibility of its ending in death.' [Several interesting papers may be referred to in sect. 58 : 3 of the *Medical Digest* that have from time to time appeared, since the one by Hebra in 1861.—*Rep.*]

1150. *Fraser on Obstruction of the Bowels*.—Mr. G. R. Fraser, in the *Brit. Med. Jour.*, June 1883, p. 1176, communicates the following case. The author was called to a lady, aged 45, who was said to be suffering from 'cramps of the stomach.' She was vomiting frequently, and complained of intense pain in the stomach and bowels. The patient said that her bowels had been freely moved twenty-four hours previously, by an aperient. Bismuth and hydrocyanic acid, with a full dose of tincture of opium, were ordered, but had no effect. The vomiting became stercoraceous, and the breath had a fecal odour. Nothing could be detected by examination, and copious injections failed to bring away anything at all. The patient was put under opium, and hot fomentations applied to the abdomen. The vomiting became less frequent, but tympanites increased. On the fifth morning the patient said that a something had liberated itself in her inside, and that she had passed wind. After this a motion passed, and the patient rapidly regained her usual health.

1151. *Buxton on Complete Suppression of Saliva after Mumps*.—Mr. Buxton, in the *Lancet*, June 1883, p. 1087, reports a case of a lady who contracted mumps, and, as soon as the acute inflammation of the glands had subsided, she complained of persistent dryness of the mouth. Mr. Buxton was called in, and found that the tongue, cheeks, palate, pharynx, &c., were in an extremely dried-up state. Gargles of potassic chlorate were ordered, and glycerine applied to the interior of the mouth; and an infusion of 50 grains of jaborandi, was ordered to be taken daily for four days. Copious perspiration, followed by great weakness, was brought on by the jaborandi; it was therefore discontinued. Then large doses of mercuric iodide, dissolved in excess of potassic iodide, were given for ten days with no relief. The next step taken was to introduce a fine silver probe into Stenson's duct for about an inch, this being connected with a continuous Leclanché battery. The positive electrode was placed on the nape of the neck. After continuing the current for ten minutes, a thick white liquid oozed from the duct; then a drop of saliva followed. The process was repeated with the opposite Stenson's duct and with Wharton's ducts, with the same result; and an hour afterwards a gentle flow of saliva from each duct was discernible.

Three days afterwards, the flow of saliva was almost normal in amount, and the patient rapidly recovered. A similar case was mentioned in the LONDON MEDICAL RECORD, 1877. The suppression resulted in that case from tonsillitis; the flow was restored by stimulation, by continuous current 'frequently reversed.' Mr. Buxton preferred to submit the glands to the continued action of the negative pole. [In the *Med. Times and Gazette*, March 1879, p. 495, a case is reported of a man who never had any secretion at all of saliva, and yet who did not suffer from indigestion. A somewhat similar case is reported in the same journal, No. 1868, p. 603; *Vide Medical Digest*, Sect. 811 : 3.—*Rep.*]

1152. *Poore on Two Cases of Splenic Leucocythæmia in which Electricity was locally applied to the Enlarged Spleen.*—Dr. Poore, in the *Lancet*, June 1883, p. 1081, records two cases of splenic leucocythæmia, in which the blood-corpuscles were carefully counted on eighteen occasions, immediately before, and immediately after, the application of electricity to the spleen; with this result, that on fourteen occasions the number of white corpuscles was increased, and on fifteen occasions the number of red corpuscles was diminished after the use of electricity. The increase of white corpuscles is explained as a result of the slight diminution in the size of the spleen, which was frequently noticed after the application. It seems probable, says the author, 'that the contraction of the spleen resulted in a forcing, as it were, of leucocytes into the general blood-current. The diminution of red corpuscles is less readily explained, but it seems to lend support to the theory that one of the functions of the spleen is the destruction of red corpuscles.' The therapeutic effects of the electricity were slight and only transient; the patients thought they were easier after the application, but, judging by objective signs, Dr. Poore thought that no permanent effect was produced. Good notes are given of the two cases, with accurate tables of the number of corpuscles before and after the application, the calculations being made with Dr. Gower's hæmacytometer. [Dr. Fox, in the *Lancet*, July 1875, p. 47, refers to a paper by Dr. Roberts in the *Brit. Med. Jour.*, August 1869, p. 585, when the use of electricity in the treatment of enlarged spleen proved most satisfactory.—*Vide Medical Digest*, Sect. 990 : 3.—*Rep.*]

1153. *Stevenson on a Case of Persistent Hiccough.*—Dr. Stevenson, in the *Lancet*, June 1883, p. 1043, reports a case of persistent hiccough in a man, aged 44. Some days before admission into hospital the patient was seized with pain in the lumbar region, which gradually spread round to the epigastrium, and the urine became thick and scanty. For three or four weeks, the patient remained in hospital and improved a little, but suffered from a good deal of pain in the back. He then left for about four months, and returned with a certificate saying he had an abdominal aneurism. On examination, pulsation was distinctly felt in the epigastric region. There was considerable emaciation and an anxious expression. The hiccough remained for some days, nothing relieving it except an occasional purge, and in three weeks the patient died. At the *post mortem* examination it was found that the pericardium was adherent to the heart; the upper lobes of the lungs were firmly attached to the chest-walls by old adhesions. The substance of the lungs was studded over with numerous small caseous masses. At the root of each lung were large caseous masses, about

the size of almonds, surrounding the bronchus. The hiccough was caused no doubt by these nodules implicating either the phrenic nerve in front, or the vagus behind the root of the lung. At page 392 of the *Lancet* a fatal case of gastric cancer, attended by persistent hiccough, is reported.

1154. *Harrison on Orchitis with Slough of a Portion of the Testicle, following Typhoid Fever.*—Mr. Harrison, in the *Lancet* for June 1883, p. 997, records the case of a man, who, having passed through the fatigues of the Egyptian campaign, arrived at Cairo, and was seized with typhoid fever. In four weeks, he was considered well enough to leave for England. During the voyage, there was some return of the diarrhoea, and, on his arrival in England, he was exposed to the cold east wind prevailing at that time. Three days afterwards, he was suddenly seized with violent pain in the right testicle, and the following day it was much enlarged, the scrotum being intensely red and oedematous. The temperature rose, and the patient had slight shiverings. Eventually fluctuation was detected, and incisions made, a slough being thrown off after some days. Then the wound healed. There was no history of injury or neglect to account for the orchitis. Several cases are alluded to of papers mentioning this sequela of typhoid fever, and a suggestion is made that it is like parotitis due to blood-poisoning. R. NEALE, M.D.

1155. *Weiss on so-called Symmetrical Gangrene.*—A case recorded by Dr. M. Weiss (*Centralbl. für die Med. Wiss.*, March 17) is that of a member of an extremely neurotic family, of the upper class in society, who had from infancy been the subject of various nervous complaints. Some time after convalescence from a light attack of typhus, she began to experience, without any evident cause, shifting pains of the upper extremities. At the same time there occurred, suddenly coming and going, oedema of the forearm, hands, and fingers; then a bloodless condition of one or more fingers, which became pale, waxy, and cold—the seat of unpleasant sensations. From time to time also the ends of the fingers would present round spots of various sizes, from that of a pin's head, of a bluish red colour, presenting a dry parchment-like condition of the skin. The integument would become necrosed, and desquamating, leave an annular patch of cicatrising surface. The whole process lasted three months. The terminal phalanges of the little and ring fingers of the left hand were lost, and the volar surface of the right middle finger was diseased in the same manner. Superficial gangrene of the skin over the sacrum also occurred. Then parietic symptoms of the left cervical sympathetic appeared, followed by wasting of the left side of the face. Aphasia was twice noticed. During the process of mortification, the sensibility of the hand, and its susceptibility to heat and electricity were reduced. The activity of the muscles of the hand was diminished, as was also their faradaic excitability. The nails of all the fingers became furrowed, and exhibited a dark brown discoloration. The vascular system did not appear to be disturbed. Menstruation did not exert any influence upon the course of the affection. The pathogenesis of the case is, by the author, traced to disturbance of the vaso-motor system, causing spasm of the minute vessels. By spastic ischæmia of the centres of speech, aphasia was occasioned, and by the same condition in the anterior cornua of the spinal cord muscular nutrition

would be interfered with, while the cutaneous lesions could be traced to a morbid condition of the posterior columns. [Clarke's (?)—*Ref.*]

1156. *Cahn on a Peculiar Form of General Atrophy following Diphtheria*.—Dr. A. Cahn relates (*Centralbl. für die Med. Wiss.*, June 23) the following case from the practice of Dr. Kussmaul. A boy, aged 14, in consequence of diphtheria, became the subject of paralysis of the palate and pharynx, extending to the lower segment of the œsophagus. The patient complained of severe sense of pressure at the lower end of the sternum after swallowing, the food being regurgitated in from two to four minutes, mixed with a tenacious mucus. The appetite was good and digestion performed, so that disease of the stomach was excluded; but, despite the taking of a reasonable amount of nutritious food, and the gradual improvement of the œsophageal paralysis, the patient lost strength and became emaciated to a skeleton. The pulse was 88 and feeble. The skin was dry and desquamating. Electrical excitability of the muscles was normal. The knee-phenomena were absent for a time on the left side, but returned. The reflex action of the cremaster and of the feet was strongly manifested. The action of the bowels was regular. The quantity and quality of the urine were normal, and in proportion to the amount of food taken. The patient being kept in bed for eight days gained weight, from 22.12 to 30.12 kilogrammes (= about 30 lbs. Eng. increase in weight); on leaving his bed, and moving about, his weight speedily again fell to 26 kilogrammes, and then gradually, especially after a slight attack of rubella, with three days' fever, rose to its former standard. Kussmaul regarded this disturbance of the nutritive and assimilative functions as analogous to the motor and vaso-motor paralysis, often seen after diphtheria.

W. B. KESTEVEN, M.D.

1157. *Schaeffer on the Early Diagnosis of Tuberculosis*.—In the *Deutsche Med. Wochens.*, for May 23 and 30, and June 6, Dr. Max Schaeffer of Bremen gives a method of diagnosing tuberculosis of the lung at a stage when no symptoms on the part of the lung can be detected. He has found in many cases that the first indication has been a slight paralysis of the vocal cords on the same side of the body as that on which the pulmonary symptoms subsequently develop. He thinks this early symptom is due to pressure on the recurrent laryngeal nerve by an amount of swelling or œdema of the lung-tissue too small to give rise to any other symptoms. He considers that if this early symptom were always looked for, and its occurrence followed by proper treatment, many cases of phthisis might be checked before developing farther. The most important part of the treatment is the nourishment of the patient, so that the existing infection may be overcome, and fresh attacks prevented. When cod-liver oil cannot be borne, Scherff's condensed milk, prepared without sugar, will be found very beneficial; and when the stomach cannot bear iron, it may be injected subcutaneously. The climate to which the patient shall be sent must be chosen according to the individual case, but Dr. Schaeffer prefers the sea-coast, as a rule. He has found very great benefit to result from causing patients to draw deep breaths, from ten to sixty at a time, three times a day; the respiratory coefficient has increased almost to normal by this means. He finds a combination of atropine and morphia most

useful in hæmoptysis, and for fetid expectoration he prefers Peruvian balsam in doses of three to five drops. The sputa should always be expectorated, never swallowed, and it is convenient to receive them into a vessel containing earth which may be burned.

1158. *Bülow on the Danger of Operating for Hydro-pneumothorax in Phthisical Patients*.—At the meeting of the Hamburg Medical Society in October 1882 (*Deutsche Med. Wochens.*, June 6), Herr Bülow represented the danger of operating in cases of hydro-pneumothorax in phthisical patients. He considers that the pressure of the fluid in the pleural cavity prevents the advance of tuberculous processes in the lungs, and that they go on increasing rapidly when the pressure is suddenly removed. In the discussion which followed at the next meeting in November Herr Curschmann recommended operative interference when the pressure of air or fluid in the pleura became too great, especially in cases where a valvular opening had existed into a bronchus.

ALICE KER, M.D.

1159. *Park on a Case of Enteric Fever with Aberrant Temperature Curve*.—In the *Glasgow Medical Journal* for July 1883, Dr. Robert Park relates a case of enteric fever, in which the interesting features are the long duration of the attack and the aberrant course of the temperature. The patient first came under observation on Aug. 19, 1882, when he complained of loss of appetite and general malaise. He was again seen on Aug. 26, and on this occasion there was no difficulty in arriving at a diagnosis of enteric fever. This date the patient reckoned to be the sixteenth day of his illness. The symptoms presented by the patient while he continued under treatment were those met with in tedious cases of enteric fever. The fever did not definitely cease till Jan. 10, 1883, after which date the temperature continued normal. The duration of the disease (counting primary attack and relapses) was thus altogether 163 days. Although not quite unprecedented, so long a duration is very unusual, and for this cause alone the case is worthy of record. It is, however, to the course of the temperature that Dr. Park draws special attention. He points out that the temperature by no means followed the typical course laid down by Wunderlich, and he expresses the belief that, if accurate temperature charts were forthcoming, many cases of this fever (especially in private practice) would be found to present an aberrant temperature-curve.

D. MANSON FRASER, M.D.

1160. *Amalio on Pernicious Intermittent Fever: Choleric Form*.—V. B., aged 47, with a good previous history, was seized with intense shivering, violent pains in the stomach, and cramps of the legs; the skin was cold and sweating, the pulse frequent and thready, the tongue dry; he had great thirst, constant diarrhoea, and vomiting. His face was pale, his eyes sunken, and he had great general depression. The attack began as he was walking by the river. Choleric form intermittent fever was the diagnosis, and quinine was given. The next evening the access returned, but much modified. After this it did not return, and the patient soon recovered.

1161. *Espina y Capo on the Clinical Conception of Acute Pneumonia as the Base of Treatment*.—Dr. Espina publishes a long and interesting paper in the *Rev. de Med. y Cirurg. Pract.* He thinks we must admit two classes of pneumonia—acute fibrinous pneumonia and infective pneumonia. The first is a true inflammation with all its characters and con-

sequences, in its etiology, pathology, history, and treatment. The second is an infection localised in the pulmonary parenchyma, and is distinguished from the first by its specific cause, by its special course, and terminations. The first requires expectant or antiphlogistic treatment, the second tonic and revulsive medication. The prophylaxis in the first is in individual, in the second in public hygiene.

G. D'ARCY ADAMS, M.D.

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

1162. FENDICK.—Habitual Constipation. (*Brit. Med. Jour.*, June, p. 1064.)
1163. SMITH.—Nitrite of Amyl in Uremic Asthma. (*Ibid.*, June, p. 1115.)
1164. RINGWOOD.—Nitrite of Amyl in Uremic Asthma. (*Brit. Med. Jour.*, June, p. 1064.)
1165. COOK.—Experiments on the Influence of Drugs on the Excretion of Urea and Uric Acid. (*Brit. Med. Jour.*, June, p. 1060.)
1166. CRONIN. Cannabis Indica. (*Ibid.*, June, p. 1117.)
1167. LAWRENCE.—Cannabis Indica. (*Ibid.*, June, p. 1117.)
1168. QUINLAN. Galium Aparine as a Remedy for Chronic Ulcers. (*Ibid.*, June, p. 1173.)
1169. RICHARDSON.—The Treatment of Zymotic Pyrexia by Inhalation. (*Lancet*, p. 292.)
1170. PARK.—Jaborandi or Pilocarpine in the Collapse of Scarlatta Maligna. (*Lancet*, June.)
1171. PETERSEN.—Oxide of Zinc as a Dressing for Wounds. (*Deutsche Med. Wochenschr.*, June 20.)
1172. BELSOFF, A. K.—On Carbamide as a Substitute for Quinine in Intermittent Fever. (*Tracheb. Vedom.*, No. 540, 1882, p. 3493.)
1173. KLASOVSKY, A. Observations on Malarial Fever in the Transcaucasian Region. (*Ibid.*, No. 539, 1882, p. 3479; No. 540, p. 3494; and No. 541, p. 3513.)
1174. FAVORSKY, A. M.—The Treatment of Erysipelas by Trichlorophenol. (*Ejend. Klin. Gazeta*, 1883, No. 18, p. 279.)
1175. POPOFF, V. N.—A Contribution to the Question of the Therapeutic Use of Trichlorophenol. (*Tracheb. Vedom.*, No. 18, 1883, p. 274.)
1176. ROMERO, M.—The Treatment of Phthisis by Inhalation of Sulphur-Vapour. (*Tracheb. Vedom.*, 1883, No. 569, p. 4002.)
1177. GATCHIKOVSKY, G. T.—On the Therapeutic Value of Nitrogen. (*Tracheb. Vedom.*, 1882, No. 538, p. 3467.)
1178. FURNI AND OTTOLENGHI.—The Influence of Caffeine and Infusion of Coffee on the Daily Quantity of Urea excreted in the Urine. (*Giornal. della R. Accad. di Med.*, and *Il Pisani*.)
1179. SQUIBB.—Carbolic Acid as a Local Anesthetic and Mouth Wash. (*Ephemeris*, May 1883.)
1180. SQUIBB.—Powdered Boric Acid. (*Ephemeris*, May 1883.)

ART. 1162. *Fendick on Habitual Constipation*.—Mr. Fendick, in the *Brit. Med. Jour.*, June 1883, p. 1064, supplements Dr. Granville's prescriptions for habitual constipation, by suggesting the trial of the following pill, in cases of constipation due to want of muscular tone and to diminished glandular secretion. Extr. aloes Socot. aq. quosi gr. ij, extracti nucis vomice gr. ss, pulv. ipecac. gr. ss. To be taken each day with dinner. Strict orders must be given

to the patient never to neglect going to stool at a fixed hour daily. Another remedy is a drachm of castor-oil every morning, persisted in for some weeks. Should these fail, a small enema of about half a pint of thin gruel, used every morning, will often overcome the difficulty.

1163. *Smith on Nitrite of Amyl in Uremic Asthma*.—Dr. S. C. Smith, of Halifax, in the *Brit. Med. Jour.*, June 1883, p. 1115, in referring to the usefulness of nitrite of amyl in allaying the paroxysms of uramic asthma, says that in its very power lies its danger; for it often gives such relief, even in desperate conditions, that a feeling of false security is apt to be engendered, and thus, instead of the asthma being accepted as a most urgent warning of danger, the facility of getting relief is taken as a permission to throw aside restraint. The author points out that there are several kinds of dyspnoea, but only in one group of cases does nitrite of amyl produce any relief, and those are attacks of cardiac dyspnoea due to failure of the heart; in these cases the seriousness of the attack is often overlooked, and the ease so rapidly obtained should not be taken as proving the neurotic origin of the attack, the case really being one of failing heart; hypertrophy has done what it can, and is no longer able to overcome spasm of the arterioles. A warning ought to be taken, so that a life free from worry and excitement may be lived by the patient, with careful attention to diet and regular habits, and the steady employment of small doses of iron and digitalis.

1164. *Ringwood on Nitrite of Amyl in Uremic Asthma*.—Mr. Ringwood, in the *Brit. Med. Jour.*, June 1813, p. 1064, confirms Dr. Sanctuary's remarks in the *Journal* of May 19 concerning the great relief that the inhalation of nitrite of amyl gives in cases of uramic asthma. Two cases of patients suffering from urgent dyspnoea are recorded. One was a man aged 56, the subject of albuminuria, who was nearly pulseless and battling for breath; he was almost instantly relieved by the inhalation of a small quantity of nitrite of amyl. The second case was that of a man aged 60, who suffered from urgent dyspnoea, the result of chronic bronchitis, dilated heart, and congested liver; his urine was free from albumen and sugar. Nitrite of amyl was here tried, but gave little or no relief, the drug neither affecting the pulse nor the general circulation.

1165. *Cook on the Influence of Drugs on the Excretion of Urea and Uric Acid*.—Mr. Alleyne Cook, in the *Brit. Med. Jour.*, June 1883, p. 1060, continues his experimental researches reported in the *Journal*, p. 858, taking up the question of the action of powdered malt on the excretion of urea and uric acid. Half a teaspoonful of malt powder was taken after each meal for five days, the effect being that it seemed to increase the excretion of urea considerably, and of uric acid also. The action of pepsin on the eliminations of urea and uric acid was tried, and seemed to show that there was an increase in both. Euonymin had no appreciable influence on the urea excreted, but for a day or two the uric acid increased considerably, and then was seen to decrease in spite of the continued administration of the drug; but there was an increased action of the bowels also produced, and this may have carried off some of the materials which would otherwise have passed by the kidneys. The conclusions arrived at by the author are these. 1. An action on the food which will certainly tend to increase the action of the liver, tends also to increase uric acid and urea. 2. A direct action on

the liver by a drug, while it markedly increases uric acid, does not increase the elimination of uric acid.

1166. *Cronin on Cannabis Indica*.—Dr. Cronin, in the *Brit. Med. Jour.*, June 1883, p. 1117, notes that cannabis Indica is a most excellent nerve tonic, very valuable in cases of hæmorrhage and after confinement, where there is loss of rest, and in all cases of nervous insomnia in women. The dose is five minims of the tincture three or four times a day; no disagreeable effects follow such doses. [The great value that many have found in, and still attach to, the use of this drug may be seen at a glance in section 362:3, *Medical Digest*, but in few diseases has any drug shown such curative powers as those described by Dr. Clouston from the use of cannabis combined with bromide of potassium in mania; *vide* section 1380:4.—*Rep.*]

1167. *Lawrence on Cannabis Indica*.—Mr. Cripps Lawrence, in the *Brit. Med. Jour.*, June 1883, p. 1177, mentions that cannabis Indica is a safe sedative and hypnotic in chronic renal disease, when vigil or neuritis are prominent symptoms. The extract should be given in one-grain doses, every four or six hours, to an adult. It does not augment the albuminuria, and the sedative action is at once safe and pronounced. Dr. Jeaffreson, of St. Bartholomew's Hospital, valued cannabis Indica highly as a sedative, which would manifestly control the exhausting jactitation occurring in cases of severe chorea. [In subsequent pages, many observers note the uncertainty of the action of Indian hemp; an uncertainty that few who have used the drug have failed to notice and deplore.—*Rep.*]

1168. *Quinlan on Galium Aparine as a Remedy for Chronic Ulcers*.—Dr. Quinlan, in the *Brit. Med. Jour.*, June 1883, p. 1173, draws attention to the use of a paste made by pounding the stalks of galium aparine, used as a poultice and applied to the surface of chronic ulcers. A healthy action seems to be set up, and granulations rapidly appear on chronic unhealthy surfaces. The plant belongs to the order Rubiaceæ, and is found growing wild in the hedges of every part of the United Kingdom. [The value of galium aparine in many cases may be traced by reference to section 404:3 of the *Medical Digest*.—*Rep.*]

1169. *Richardson on the Treatment of Zymotic Pyrexia by Inhalation*.—Dr. B. W. Richardson, in the *Lancet*, June 1883, p. 902, relates how, in 1853, he treated a case, of what was then called phagedænic croup, by means of an inhalation of ammonia in combination with chloroform; the inhalation was kept up for fourteen hours, and food was administered by enemata. The fever speedily subsided, and recovery was rapid and complete. Since that time, Dr. Richardson has made researches as to the effect of the vapours of ammonia and chloroform, alone and combined, on putrefactive changes. Recently the combined vapours have been tried in cases of zymotic fever, with very beneficial results. A case of puerperal fever was lately treated successfully by means of continuing the inhalation every two hours for three days.

1170. *Park on Jaborandi or Pilocarpine in the Collapse of Scarletina Maligna*.—Dr. Park, in the *Lancet*, June 1883, records a case of a child, aged 5, who was suddenly seized with violent vomiting and purging. There was the characteristic smell which exhales from the body of many patients with enteric or scarlet fever. Temperature was 101·5°, pulse

160. Dr. Park inclined to the belief that the case was one of scarlatina maligna, and treated the patient by giving half a drachm of brandy every hour and the following mixture:—Liquid extract of jaborandi, 3 drachms (Richards); solution of acetate of ammonia, 2 ounces; syrup of poppies, 4 drachms; chloroform-water to 4 ounces. A drachm was given every two hours. The next day the patient was much collapsed. The jaborandi was doubled; and as it produced very little physiological effect, pilocarpine was injected hypodermically. At first one-thirtieth of a grain was given, and in twenty minutes another dose of one-thirtieth of a grain. This produced a marked improvement in the pulse, also a copious discharge of urine; the sickness and purging ceased, and the patient gradually recovered. Dr. Park's theory is that the exanthem was confined to the gastro-intestinal surface, as no rash ever appeared on the skin. RICHARD NEALE, M.D.

1171. *Petersen on Oxide of Zinc as a Dressing for Wounds*.—Prof. Petersen, of Kiel, recommends (*Deutsche Med. Wochenschr.*, June 20) zinc oxide in powder as a dressing for wounds in place of bismuth or iodoform. It has a sterilising influence on the tissues with regard to the development of bacteria, and under it the wound heals readily, leaving a smooth cicatrix, with no tendency to contraction. It is important that the powder should not be removed before it separates spontaneously, as the new skin is apt to be torn off along with it.

ALICE KER, M.D.

1172. *Belousoff on Carbamide as a Substitute for Quinine in Intermittent Fever*.—In a preliminary note in the *Tracheb. Vedom.*, 1882, No. 540, p. 3493, Dr. A. K. Belousoff, of Charkov, strongly recommends carbamide, in doses from five grains to a drachm, two or three times a day, as an effective and cheap substitute for quinine in intermittent fever as well as in all diseases accompanied by feeble movements. As a rule, the temperature falls about one and a half hour after the administration of a dose. The drug is well borne by the gastro-intestinal tract, nor do any nervous symptoms follow its use. The author states, also, that carbamide possesses a considerable antiseptic and parasiticide power; in fact, he was induced to try the drug in malarial fever after he had experimentally discovered that carbamide destroys the vitality of lower organisms. [Dr. Belousoff seems not to know that long before him urea was already tried in malarial cases by Drygin, Mancevitz, Necrasoff, Kraisky, &c. In the *Proceedings of the Caucasian Medical Society*, 1866-67, Dr. Kraisky's paper dealing with the same subject may be found. It is based on twenty-six cases of intermittent fever treated by carbamide. Only four of the patients were cured; three others obtained a temporary relief; in eleven, urea remained completely inactive; and in the remaining eight anæmia and general debility appeared, and the patients slowly recovered under some other treatment. Dr. Kraisky sums up his results in the following manner. 1. The administration of urea may arrest paroxysms in certain cases. 2. Urea appears to shorten the stage of chills; the stage of heat, however, becomes the more agonising. 3. Any persistent prolonged administration of urea seems to favour the development of malarial cachexy. Hence, 4. The administration of urea is allowable only in mild cases of intermittent fever; to persevere with it in difficult cases is rather dangerous. So says Dr. Kraisky.

Meanwhile, Dr. Belousoff asserts that urea is innocuous, even when taken in drachm-doses.—*Rep.*

1173. *Krasovsky on Tincture of Eucalyptus in Malarial Fever.*—While Keller, Binz, Lorinser, Strube, (Effinger, and others, record most favourable results from the use of eucalyptus in malarial intermittent, Dr. A. Krasovsky, of Ozurgety (*Vracheb. Vedom.*, 1882, Nos. 539, 540, and 541), joins Koch, Burdel, Fiechter, Lesh, &c., in denying any considerable antiperiodic properties of the drug. In one group of his cases he administered tincture of eucalyptus (1 to 6) alone, in doses from half a drachm to two drachms, once or twice daily. Except some decrease in the intensity of the paroxysms, no other therapeutic effect was obtained. Two-drachm doses produced toxic symptoms (headache, sleeplessness, 'general excitement of the nervous system'). In another series of his cases, the author used tincture of eucalyptus in combination with quinine (R Quinine sulph. gr. xv., acidi sulphur. dil. gtt. x., aque destill. 5j., tinct. eucalypti glob. 5j. ad 5ij.). In all these cases the previous treatment by quinine alone had failed, and all of them rapidly yielded to the mixture. From this, the author is inclined to admit that eucalyptus seems to somewhat strengthen the action of quinine. [In the *Vracheb. Vedom.*, 1882, No. 16, the treatment of intermittent by a mixture of decoctions of cinchona and tincture of eucalyptus is eulogised by Dr. M. Rombro.—*Rep.*]

1174. *Favorsky on the Treatment of Erysipelas by Trichlorphenol.*—In accordance with Dr. Yurinsky's invitation (see the LONDON MEDICAL RECORD, May 1883, p. 106), Dr. A. M. Favorsky, of Staro-Ekaterinensky Hospital, Moscow (*Ejened. Klin. Gazeta*, 1883, No. 18), has tried painting with trichlorphenol in twenty cases of erysipelas. He used the following formulae. 1. R Trichlorphenoli 5v., spir. vini q. s. ad solutionem, glycerini lbj.; make a five per cent. solution. 2. R Trichlorphenoli 1000, spir. vini q. s. ad solutionem, glycerini 1000; make a ten per cent. solution. The results at which Dr. Favorsky arrived are these. 1. Trichlorphenol by no means arrests the erysipelatous process. 2. Speaking generally, trichlorphenol is a good therapeutic adjuvant in the treatment of erysipelas; however, it does not very greatly differ from other remedies commonly used in cases of erysipelas, as carbolicised oil, oil of turpentine, cold compresses, &c. The average duration of the treatment by trichlorphenol is about four days, that by carbolicised oil about five days. 3. The administration of trichlorphenol (exactly like that of other remedies) does not prevent the occurrence of cases in which the erysipelatous process continues to spread and progress, and persists for a long time in spite of the treatment. [In an editorial note to Dr. Favorsky's paper, Professor Nil Sokoloff states that he himself and Professor V. N. Popoff saw splendid results from the use of trichlorphenol in erysipelas. To secure full success it is necessary—1. to use pure preparations of the drug in question, since some impure specimens possess acid properties and may prove rather harmful than otherwise; and 2. to cover the painted parts by a layer of cotton-wool.—*Rep.*]

1175. *Popoff on the Therapeutic Use of Trichlorphenol.*—Professor V. N. Popoff, of St. Petersburg (*Vratch*, April 1883, No. 18), used trichlorphenol with great benefit in the following cases. 1. In eight cases of non surgical erysipelas. Two or three paintings with 3 or 5 per cent. glycerine solution were sufficient to check the process and to bring the

temperature to the normal level. Recovery followed on the third to the fifth day of the treatment. 2. In two cases of catarrhal leucorrhoea and in three of gonorrhoea (injections of from 2 to 6 per cent. aqueous solution). 3. In one case of dysentery (enemata made of 2 per cent aqueous solution). 4. In two cases of ulcerative laryngitis (inhalation of 2 per cent. aqueous solution). The high parasiticide properties of trichlorphenol (see Dianin's paper in the LONDON MEDICAL RECORD, April 1883, p. 132) lead Professor Popoff to the recommendation to try the drug in cases of diphtheria.

1176. *Rombro on the Treatment of Phthisis by Inhalation of Sulphur-Vapour.*—Dr. M. Rombro, of Taganrog, records (*Vracheb. Vedom.*, 1883, No. 569) four cases of phthisis in which he obtained very satisfactory results from the inhalation of sulphur-vapour. All the patients were submitted to the treatment simultaneously. They were placed in a spacious ward, in which a drachm of powdered sulphur was burnt twice daily. No other treatment was used. In all four cases (two of which were previously regarded as hopeless) a great improvement in physical and subjective signs gradually followed. One of the patients left the hospital in fair condition after three weeks' treatment; and the others are still under observation, steadily gathering their strength.

1177. *Gatchkovsky on Nitrogen Inhalations.*—Dr. G. T. Gatchkovsky (*Vracheb. Vedom.*, 1882, No. 538), who, in common with Rossbach, Jochheim, and other authors, regards inhalations of nitrogen gas as one of the varieties of 'lung gymnastics' (see his article in the *Vracheb. Vedom.*, 1881, Nos. 45 and 46), returns to extolling the use of this therapeutic method in certain pulmonary diseases (chronic bronchitis, &c.). He makes his patients inhale a mixture of nitrogen gas and air from a special apparatus, from ten to twenty minutes daily, three or four successive weeks. V. IDELSON, M.D.

1178. *Fubini and Ottolenghi on the Influence of Caffeine and Infusion of Coffee on the Daily Quantity of Urea excreted in the Urine.*—Frerichs, Lehmann, Roux have observed an increase of urea after the use of coffee or caffeine; Boecker and Rabateau, instead, noticed a diminution; while other observers (Squarey, Voit) have not been able to recognise appreciable difference in the amount of urea from the influence of coffee. The authors, in twenty experiments (*Giorn. della Accad. di Med.*), observed constantly an increase of urea as much by the influence of caffeine in daily doses of 20 to 25 centigrammes, as by infusion of coffee containing the same quantity of caffeine: if 100 represents the value of the urea excreted by a man in the twenty-four hours, when he is not taking coffee, 117 would represent the medium quantity of urea after the use of coffee. The urea was estimated by Liebig's method.

G. D'ARCY ADAMS, M.D.

1179. *Squibb on Carbolic Acid as a Local Anæsthetic and Mouth-Wash.*—Dr. Squibb (*Ephemeris*, May 1883) says: Carbolic acid and other phenols with which it is associated are all very effective local anæsthetics, and this therapeutic relation is far too much overlooked or neglected. A paper by Dr. J. H. Bill, of the United States army, published in the *American Jour. of Med. Sciences* for 1870, page 573, first drew attention strongly to this point, and every one who has handled the acid much has amply confirmed Dr. Bill's experience, and yet the matter has been but imperfectly followed up.

Even its application to the pain of burns, erysipelas, and other superficial affections, though often insisted upon, is not generally adopted, and when adopted it is rarely in the best way. The writer knows from personal experience, and from extensive practice in his laboratory where burns and scalds are not unfrequent, that a solution containing from one-half to 1 per cent. applied by means of thin cloths, frequently renewed, will relieve the pain of burns within ten minutes; and the relief will be permanent if the application be continued during the twenty-four or forty-eight hours of primary irritation. Under such dressing the burns, if superficial, will not suppurate, and if deeper, the suppuration will be greatly diminished and modified. If the solution be applied too strong, it will at first increase the pain for a very short time; but the after-effects are less favourable, as the irritation of too much of the acid increases the tendency to suppuration. A simple rule for guidance is that the renewal of the application should not cause smarting or renewal of the pain. The anæsthetic effect upon the acute suffering of burns and scalds is very remarkable. A 5 per cent. solution of this liquefied acid is a very convenient preparation to keep in readiness for making the more dilute solutions needed for burns, erysipelas, &c., and for such uses as protecting hypodermic solutions. One-twentieth of such a solution is quite sufficient to prevent the growth of microderms in any preparation which needs protecting. It is simply to be added in making up the preparation to the required measure. A piece of paper moistened with a few drops of such a solution and kept in extract-pots, &c., will prevent the growth of mould. Such a solution diluted so as to be not stronger than 1 per cent., nor weaker than about $\frac{1}{2}$ per cent., makes an excellent tooth and mouth wash for use in the morning. Habitually used, it in some degree checks the deposition of 'tartar' on the teeth, keeps the tooth-brush sweet and clean, and there is nothing that leaves the mucous surfaces in so clean and pleasant a condition for the first meal of the day. A bottle of the 5 per cent. solution may be placed upon the washstand, and a couple of teaspoonfuls poured into the mug, diluted with four or five times as much water, stirred with the tooth-brush and then used upon the brush; the mouth being finally rinsed out with the remainder of the dilution. This is a very good habit, which has been followed by the writer and many others for many years with advantage.

1180. *Squibb on Powdered Boric Acid.*—Dr. Squibb, in the *Ephemeris*, for May 1883, writes as follows. The acid is generally required in powder for medicinal uses, yet not always so, and therefore care should be taken to order it in powder when wanted in that condition. An order simply for boric acid will and always should bring it unpowdered. For many of its recent uses in medicine it is required in very fine powder, and such is the only powder that should be sold. With care, in a proper mill it makes a beautifully white light powder, entirely free from particles when rubbed between the finger and thumb, feeling very much like powdered soap. It is only such powder that will answer well in eye-surgery, or in general surgery for dressings; and solutions, when required, are most easily and best made from this powder. A solution saturated at ordinary temperatures contains between 4 and 5 per cent.; and from 10 grains in the fluid ounce up to saturation it is frequently used as an eye-wash, or to granulate suppurating surfaces in

general. It is a very bland and soothing application, whether applied in powder or in solution, relieving irritation and reducing suppuration. It is a very potent antiseptic, probably equal to salicylic acid, and is much less expensive; and its advantages over carbolic acid for some purposes are chiefly that it is odourless and more easily managed. For the preservation of hypodermic solutions, it is probably better than either salicylic or carbolic acids, though comparative experiments are still needed to determine this. In surgical dressings, it has the great advantage over carbolic acid, that it is not irritant nor poisonous in any quantity that has been applied. Not being at all volatile, however, it has no effect in cleansing or deodorising the air. It has been administered internally in large doses without any disturbing effects, but only by a very few observers, so that little is known of its internal uses.

PATHOLOGY.

RECENT PAPERS.

1181. BIANCHI.—Actinomycosis or Rivolta's Disease. (*Lo Sperimentale*, March 1883.)
1182. RADULOVITCH.—On a Case of Lipoma of the Chest-Cavity. (*Reports of the Orel Hospital*, 1882.)
1183. MODRZEJSKI, E.—On a Case of Multiple Fibromata. (*Gazeta Lekarska*, 1882, Nos. 19 and 20.)
1184. MAGGI.—Experiments on Carbuncular Inoculation. (*Gazz. Med. Ital. Lomb.*, Feb. 10, 1883.)
1185. PETRONE.—On Acute Primary Carcinoma of the Serous Membranes. (*Lo Sperimentale*, Dec. 1, 1882.)
1186. SILVESTRINI.—On the Malarial Miasm. (*Gazz. Med. Ital. Venet.*, Feb. 10, 1883.)
1187. BERGONZINI and TONINI.—Effects of the Inoculation of Certain Bacteria in the Animal Organism. (*Ital. Med.*, March 1883; *Gazz. Med. Ital. Prov. Venet.*, April 1883.)
1188. DE GIOVANNI.—Alterations of the Vena Cava Inferior, complicating Cirrhosis of the Liver. (*Gazz. Med. Ital. Prov. Venet.*, June 2, 1883.)
1189. ARRO.—Rupture of the Pulmonary Artery: Sudden Death. (*Revista de Ciencias Medicas, Rev. de Med. Chirurgia*, April 22.)
1190. VON PFUNGEN.—On Abscesses of the Brain in Bronchiectasis, with Purulent Bronchitis. (*Wiener Med. Blatter*, February 15, 1883.)
1191. TUCZEK.—Hæmatoma of the Dura Mater. (*Wiener Med. Blatter*, March 22.)
1192. KUNDRAT.—Actinomycosis in Man. (*Wiener Med. Blatter*, April 19.)
1193. LEYDEN.—Micrococci of Cerebro-Spinal Meningitis. (*Deutsche Med. Wochens.*, April 4.)
1194. KEHLER.—The Fungus of Thrush. (*Deutsche Med. Wochens.*, May 2.)
1195. KOBER.—Fibroma, Neuroma, and Angiectasis in the Region of the Brachial Nerve. (*Deutsche Med. Wochens.*, April 25.)
1196. SIMMONDS.—Tuberculosis of the Tunica Vaginalis. (*Zeitschrift für Chirurg.*, Band xviii.)
1197. LITZEN.—The Pathology of the Blood in Pernicious Anæmia. (*Berliner Klin. Wochens.*, July 2.)
1198. PETERS.—The Staining of Tubercle-Bacilli. (*Berliner Klin. Wochens.*, June 11.)
1199. MILLER.—The Influence of Micro-Organisms on Caries of Human Teeth. (*Archiv für Exper. Pathol.*, Band xxvi.)
1200. GRIFFINI.—On the Acquired Immunity from Anthrax. (*Gazz. degli Ospitali*, No. 60.)
1201. MAFFUCCI, ANGELO.—Anatomical and Experimental Studies on Biliary Atrophy and Hypertrophic

Cirrhosis of the Liver. (*Giorn. Intern. delle Scienze Med.*, An. iv., Fasc. 9-10, p. 889.)

1202. FREIRE, DOMINGOS.—Yellow Fever. (*Gazz. Med. Ital. Lomb.*, June 16, 1883.)

1203. MENDEZ, RODRIGUEZ.—The Transmissibility through the Placenta of Acute Virulent Diseases. (*La Consulta*.)

1204. FEHLEISEN.—The Pathology of Erysipelas. (*Centralbl. für Klin. Med.*, No. 11.)

1205. COLOMIATTI.—The Bacilli of Herpes Labialis. (*Gazz. delle Chir.*, No. 5, 1883.)

1206. BABES.—Ehrlich's Mistellen. (*Le Progrès Méd.*, No. 23.)

1207. GIBERT.—A Peculiar Malformation of the Heart. (*Le Progrès Méd.*, p. 23.)

1208. JUBEL-RENOY.—Multiple Cysts of the Liver and Kidneys. (*Revue de Méd.*, 1881, p. 929.)

1209. MALASSEZ.—The Tubercle Organism. (*Le Progrès Méd.*, 1883.)

1210. CAPITAN.—Dental Erosion. (*Le Progrès Méd.*, 1883.)

1211. VIGNAL.—The Tubercle-Bacillus. (*Le Progrès Méd.*, No. 18, 1883.)

1212. SMITH.—The Pathology of Diabetes. (*Brit. Med. Jour.*, April 7, 1883.)

1213. MANSON.—A New Fact in the Pathology of Parasitic Organisms. (*Med. Times and Gazette*, Feb., p. 182.)

1214. SMITH.—The Morbid Anatomy and Pathology of Diabetes. (*Brit. Med. Jour.*, April, p. 657.)

1215. PAGET AND OTHERS.—Dropping of Fluid from the Nostrils associated with Optic Neuritis. (*Med. Times and Gazette*, Jan., p. 101.)

1216. CHEYNE.—The Relation of Micro-Organisms to Tuberculosis. (*Practitioner*, April 1883.)

1217. QUÉNU.—The Pathology of Varicose Ulcers. (*Revue de Chir.*, Nov. 1882.)

ART. 1181. *Bianchi on Actinomycosis or Rivolta's Disease*.—This article (*Lo Sperimentale*, March 1883), is a summary of the literature on the subject. The author strongly vindicates Rivolta's claim to be the first to describe the disease. Rivolta's first memoir on the subject was in 1868, years before anyone else had recognised the nature of the affection. He dealt with it, however, only as it occurred in the ox and in the horse. The first to describe the disease in man was Israel of Berlin in 1878. In the following year Ponfick described a case, and he recognised, what Israel had not seen, that the malady was identical with what had been previously described as occurring in cattle. As long ago, however, as 1845 Langenbeck observed, in a case of prevertebral abscess with caries of the bones, some yellow corpuscles which he figured, and which correspond perfectly with what are now called actinomycetes. Actinomycosis is a disease characterised by tumours containing the fungus in question (actinomycetes), and resulting in suppuration. These tumours vary in size from a pea to an egg. The most usual situation for them is the neck and the angle of the jaw. They were formerly confounded with fibro-sarcoma and a variety of other growths. The fungus contained in the tumours often forms aggregations of considerable size. Under the microscope, it is seen to consist of filaments springing in a radiating fashion from a centre and terminating in knob-shaped extremities. When a healthy animal is inoculated with the fungus, a tumour makes its appearance; inflammation occurs in the surrounding tissues, and, after a time, suppuration takes place in the new growth itself. The disease is

always one of serious import. In severe cases, the lung and the pleura not unfrequently become affected; the disease extending by contiguity, or the parasite being carried by the blood-vessels or by the lymphatics. In the same way, the other viscera and the bones are attacked. In mild cases the jaw, the neck, or the tongue only may be affected. Neither the origin of the fungus nor its botanical position is yet made out. At one time it was believed to occur only in vegetable feeders; but this view has been disposed of by the case of a dog suffering from the malady. The fungus has moreover been found in the decayed teeth and in the follicles of the tonsil of healthy persons. The only treatment of use is the total removal or destruction of the diseased growth and a large portion of the surrounding tissue. If a wide area of apparently healthy tissue be not removed, the disease will recur.

WILLIAM R. HUGGARD, M.D.

1182. *Radulovitch on a Case of Lipoma of the Chest-Cavity*.—Dr. Radulovitch, of Orel, details (*Reports of the Orel Hospital*, 1882) a very rare case of this kind. A middle-aged patient during last year began to suffer from cough and pain in the left side of his thorax. On admission, there were found dulness on percussion over the whole left half of the chest, obliteration of the left intercostal spaces, a fluctuating swelling in the seventh interspace, absence of respiratory murmurs on the left side, displacement of the heart to the right. Temperature was 101.8°. Only absence of pus on puncture spoke against an enormous left-sided purulent pleuritis. The necropsy showed that the whole left side of the chest was choked up with lobulated adipose tissue, which in the seventh interspace caused atrophy of muscular substance, and was covered only by the skin.

1183. *Modrzejewski on a Case of Multiple Fibromata*.—Dr. E. Modrzejewski, in the *Gazeta Lekarska*, 1882, Nos. 19 and 20, reports a remarkable case of multiple fibromata, in which the number of the tumours was as great as 3,200. The patient, a woman, aged 37, began to observe small lumps all over the body from her childhood. The lumps gradually increased in size, but did not give rise to any discomfort. She sought admission to the hospital only on account of an enormous sarcoma of her left humerus. The patient soon died from exhaustion and fever. At the *post mortem* examination, besides fibromata of the skin, there were found numerous fibrous tumours on the nerves of the upper extremities as well as along the supra-orbital and facial nervous branches. Similar growths were found, also, on the transverse colon. A myoma grew from the wall of the ileum. (For cases of multiple fibromata, *vide* also the LONDON MEDICAL RECORD, 1880, July, p. 289; and 1882, August, p. 333.)

V. IDELSON, M.D.

1184. *Maggi on Carbuncular Inoculation*.—Professor L. Maggi and Professors Sormani and Perronitto and Dr. Nosotti were appointed as a commission to investigate the subject of carbuncular vaccination with the cultivated virus of Pasteur (*Gazz. Med. Ital. Lomb.*). On March 26 of last year, twelve heifers were inoculated with Pasteur's first vaccine liquid. This caused no fever, no local or general disturbance. On April 13 they were again inoculated with the first vaccine; in two cases this was followed by slight tumefaction, which disappeared in two days; the temperature of all the animals continued normal. On April 26 they were

inoculated with the stronger virus (No. 2 Pasteur); this caused high fever in most. On June 17 the experiment of control was begun in eight heifers, six vaccinated and two not. In this experiment, the carbuncular blood of an animal was used, which had been inoculated with the blood of a rabbit vaccinated with virulent virus from the cultivation of bacillus anthracis. With this carbuncular blood, three vaccinated and one unvaccinated heifers were inoculated. With the same blood, but diluted to a brick-red colour in a solution of chloride of sodium (0.75 per 100), three other vaccinated and one unvaccinated heifers were inoculated. After twenty-four to thirty-six hours the two unvaccinated heifers commenced to be feverish; and marked tumefaction, hot and painful, began at the site of inoculation (the shoulder) and extended to the hoof. In the six vaccinated heifers the temperature remained normal, and there was no swelling. The two unvaccinated heifers recovered in fifteen days. These experiments might be thought incomplete; so a second series was undertaken. A calf a few days old was vaccinated with the strongest virus of artificial cultivation. After slight fever and local swelling, the calf completely recovered. With fresh strong virus, a rabbit was inoculated: it died carbuncular in three days. With its blood, splenic pulp, and the exudation at the site of inoculation, which contained numerous bacilli, a second calf was inoculated: this calf died in three days from septicaemia. They then determined to continue the second control experiment, making use of a sheep instead of a calf. The sheep was inoculated with strong virus. After thirty-six hours, it being then moribund, some of its blood was withdrawn with a Pravaz's syringe containing a few drops of a neutral solution of chloride of sodium. This blood was injected in four vaccinated heifers; in the two non-vaccinated of the first series, and in two fresh heifers. Tumefaction followed in all at the site of inoculation, very slight in the four vaccinated and in the two remaining from the first series of experiments, very marked in the two fresh animals, who were also very feverish. After nine days one of these recovered; the other died after twenty-four days' fever, but from anaemia and tabes, and not from carbuncular infection. The following are the deductions. 1. Pasteur's method of carbuncular inoculation is prophylactic of carbuncle in the bovine race. The six vaccinated animals received no harm from repeated injections of carbuncular blood, while the four unvaccinated had high fever and great local swelling. 2. The heifers, virgin from carbuncular infection, subjected to inoculation of blood and carbuncular virus, presented febrile reaction, but did not die. The immunity which the two first heifers of control—the disturbance caused by the injection of carbuncular blood having ceased—acquired in presence of repeated injection in the second experiment would seem to show that the morbid process was really carbuncular in nature. 3. Inoculation with attenuated lymph (No. 1 Pasteur), although repeated, caused no general or local reaction. This allows them to suppose that its action is so slight as to justify the attempt elsewhere successfully tried by Perroncito to omit the first inoculation, and thus to gain valuable time. 4. After using the stronger lymph (No. 2 Pasteur), its action should be verified by observing the temperature for a few days. It is reasonable to suppose that the preservative effect is limited to those animals in

which a general reaction is developed. Therefore, if there be no reaction, the inoculation must be repeated. 5. Cool weather is best for the inoculation; in the heat of summer there is more danger of septicaemia. 6. Microscopical examination of the lymph prior to its use is necessary to prove the absence of bacteria of putrefaction, which, while they may destroy the prophylactic effect of the lymph, may possibly give rise to disastrous consequences.

1185. *Petrone on Acute Primary Carcinoma of the Serous Membranes*.—Dr. Petrone describes (*Lo Sperimentale*, Dec. 1882) the case of a man, aged 58, who for six or seven months had suffered from loss of appetite, nausea, and distension of the abdomen, with progressive failure of nutrition and strength. The skin was yellow; the belly was swollen, with varicose veins of the parietes. On palpation, several small hard tumours about the size of a nut could be felt. He had no fever. At the necropsy, there was slight sero-sanguineous effusion into the peritoneum; carcinomatous nodules were universally disseminated in the mesentery, epiploon, the diaphragm, and in the recto-vesical cul-de-sac. On the diaphragmatic peritoneum the nodules followed the course of the vessels. Small grey carcinomatous granulations were also found in both layers of the pleura. On histological examination were observed in the peritoneal nodules a fibrillary stroma, containing cells and nuclei, disposed in linear series in the alveoli. In the larger nodules, the central elements were degenerated. The nodules of the pleura showed the same alterations. The lungs were nowhere affected. There was no hereditary taint. From absence of hæmatemesis and melæna, although there was vomiting and diarrhoea, cancer of the stomach was excluded. From the straw colour of the skin, and from the sensation as of gelatine in the abdomen, and from the nodules which could be felt, the diagnosis of cancer of the peritoneum was made. Laporte had three analogous cases, in one of which the pericardium was affected; Hérad one case of the pleura only; Raymond one case, the pleura and peritoneum being involved.

1186. *Silvestrini on the Malarial Miasm*.—As is well known, malarial fevers are but rarely developed from exposure by day to the air of malarial places, but rather arise from the influence of the night air, especially of those clear nights in which heavy dew is condensed. If the miasm exist, it must be found in the soil and in the dew. Professor Silvestrini (*Gazz. Med. Ital. Venet.*, Feb. 10, 1883) collected the dew and soil from notoriously unhealthy places; he first injected the dew hypodermically in two dogs, with no result. He then tried them with an infusion of the soil, filtered and unfiltered, also with no result. As dogs and other animals are not known to suffer from malarial fevers, he determined to experiment on man. He injected the dew under his own skin, having first ascertained that it contained various forms of bacilli, some sporiferous, some in threes or in fours; no result. He tried the same on his wife with like result. He and his friends made fifty-two experiments on man with the dew and the infusion of the soil, proving that their subcutaneous injection is innocuous. The soil and dew were collected from many places, and used sometimes at once, sometimes after some time. These results support the earlier researches of Professor Silvestrini. He denies that a primitive infection is the cause of malarial fevers.

1187. *Bergonzini and Tonini on Inoculation of Certain Bacteria*.—From numerous experiments,

Bergonzini and Tonini (*Italia Medica*, March 1883) deduce the following conclusions. 1. The bacteria which are found floating in the air, cultivated in an appropriate liquid, not containing protein substances, and inoculated while living and very active under the skin and in the current of the circulation of various animals, have never produced any effect. 2. The bacteria which are found in septic substances, separated from them by dialysis and inoculated living and very active in animals, have never produced any effect. 3. In certain circumstances, not well determined, the septic matters, heated above 140°C . (284°F .) and hence deprived of the bacteria and their germs, have been found to be still equally capable of producing infection. These results are evidently favourable to the theory that the poison by its chemical action (*chimismo*) only, calling into play certain properties of the cellular elements, promotes their proliferation, or the secretion on their parts of equally virulent fluids, and hence proves fatal. The problem is still involved, and the last word has yet to be said.

1188. *De Giovanni on Alterations of the Vena Cava, complicating Cirrhosis of the Liver.*—In hepatic cirrhosis, ascites appears before œdema or anasarca; in diseases of the heart, the reverse holds good. Such is the rule. In cirrhosis, however, there are many exceptions. (œdema may show itself before the mechanical conditions depending on abdominal pressure arise, affecting the lower extremities and lower half of the body. It may appear in the early stages of the disease, when this has a subacute course and marked abdominal symptoms (hepatic and intestinal pain, dyspepsia, vomiting, albuminuria, &c.). (œdema may also occur in cirrhosis of slow course, either before the symptoms of the hepatic affection are clearly marked, or when this has reached an advanced stage. The abdominal pressure may be very great without a trace of anasarca, or, on the other hand, with little or no pressure the œdema may be abundant and copious. The abdominal pressure then cannot be the principal cause of the anasarca. The inferior vena cava in its passage between the lobes of the liver is necessarily somewhat constricted during the stage of contraction of the organ; but this does not account for the occurrence of œdema in the early stage of the disease. Moreover, *post mortem* examinations do not verify this constriction even in advanced cases. Neither does the state of anæmia of the patient explain the œdema, for with marked hydræmia there may be no sign of general dropsy. The principal cause of the œdema is a special lesion of the inferior cava, which in these cases is always to be found in 'a state of great hyperæmia, with signs of exo- and endo-phlebitis, with increase of the thickness of its walls, with dilatation of its calibre.' Where œdema does not occur either early or late, the vena cava is found in a perfectly normal state, affording a marked contrast to its state, as described above.

1189. *Arrò on Rupture of the Pulmonary Artery: Sudden Death.*—M. J. A., in apparent health, was suddenly seized while at supper with dyspnœa and intense pain in the chest, beginning in the clavicles and gradually extending to the sides of the chest, being, however, worst on the left side. The pulse was quiet and the other functions normal. The pain and dyspnœa continued to increase, and after thirty hours of intense suffering the patient fell back dead. The thoracic cavity was

found full of blood, the pulmonary artery being ruptured half an inch from its division; the rupture involved half the diameter of the vessel. The arterial walls appeared thin.

G. D'ARCY ADAMS, M.D.

1190. *Von Pfungen on Abscesses of the Brain in Bronchiectasis, with Purulent Bronchitis.*—Dr. Von Pfungen describes (*Wiener Medicinische Blätter*, February 15, 1883) two cases of bronchiectasis, in which abscesses were found in the brain after death. Case 1. A labourer, 53 years of age, who had had attacks of dyspnœa seven and five months previously, was admitted to the wards of Herr Scholz with a temperature of 40.5°C . (104.9°F .), and symptoms of bronchitis with fetid expectoration. Six days after his admission, he became deaf. On the fourteenth day he was in a condition of stupor, and on the eighteenth he died. Bronchiectasis was found at the necropsy, some of the dilatations being as large as a walnut, with walls a millimètre thick, and the lungs were emphysematous. An abscess was found in each centrum semiovale, larger in the left than in the right; the brain was somewhat atrophied, and the meninges opaque. The kidneys were found to be in the third stage of Bright's disease. Case 2. A watchman, aged 28, entered the psychiatric clinic of Professor Meynert suffering from one-sided tonic convulsions, which had occurred at first with perfect consciousness, but latterly he had been unconscious after them. There was paralysis of the entire left side, more or less distinct all over the body, and indications of a slight bronchial catarrh. He had had syphilis four years before, traces of which remained. Three days after admission the expectoration was fetid, the paralytic symptoms increased, and on the fifth day he died. Two abscesses were found on the right side of the brain, in the upper part of the temporal lobe; there was emphysema of the lungs, and purulent bronchitis with bronchiectasis. Paralysis of the fourth nerve had been present, and the necropsy was specially interesting as showing that such paralysis is not referable to an abscess in the base of the brain, but to one near the deep origin of the nerve.

1191. *Tuczek on Hematoma of the Dura Mater.*—Dr. Tuczek, of Marburg, describes the following case in the *Wiener Med. Blätter*, March 22. A previously healthy woman, aged 42, was taken ill four months before her death with weakness of memory, melancholy, and a feeling of severe illness. Later on came more decided head-symptoms, want of recollection and observation, dilatation of the pupil, slowness and helplessness of movements without motor weakness, diminution of sight on both sides caused by double optic neuritis with congestion of the papilla and fresh retinal hæmorrhage, and finally, loss of smell on both sides, whilst hearing remained intact. After her admission to hospital, she improved somewhat in intellectual powers, but suddenly had an attack of vomiting, and violent pain in the right side of the head; collapse and stupor caused death within nine hours. There was slight nystagmus on the left side towards the last, the left pupil being smaller than the right. Much urine was passed on the last day, containing a large amount of sugar and some albumen. No symptoms of disease in any abdominal organ were diagnosed during life or found after death. A large hæmatoma was found lying on the right cerebral hemisphere, which it had flattened and pressed inwards. The existence of so large an effusion inside the cranium

without one-sided symptoms is explained by the division of the pressure through the medium of the cerebro-spinal fluid, and by the consistence of the brain-substance, which, being 80 per cent. water, obeys laws which are closely allied to hydraulic. The permanent displacement of the brain was due to the coagulation of the blood, which took place after death. The beginning of the hematoma was evidently from a pachymeningitis interna, but the cause of that is very obscure. The woman had been in great poverty, and had led an irregular life.

1192. *Kundrat on Actinomycosis in Man.*—At a meeting of the Imperial and Royal Society of Physicians in Vienna (*Wiener Medizin. Blätter*, April 19), Professor Kundrat reported a case of actinomycosis in man. Professor Czokor had described the disease in cattle a year ago as one proceeding from the jaw, which went by the name of wooden tongue (*Holzunge*), and had been supposed to be a sarcoma of the jaw, until the characteristic fungi were found in it. In man the morbid process begins in a carious tooth; and in the phlegmonous growth, which spreads from there either up to the base of the skull or down along the spinal column, fungi are found similar to those in the disease in cattle. The process does not lead to diffuse inflammation of the cellular tissue, but to the formation of large fistule, lined with granulations, in which the fungi are found. This condition was supposed to occur invariably in the neighbourhood of bone, although not necessarily in the jaw; but Ponfick has lately communicated a case in which it followed a wound of the thumb, with a metastasis of the cardiac muscles. Two other cases were mentioned by Professor Kundrat; one of a tumour in the liver, where the same micro-organisms were found; and another, in Billroth's clinic, where an ovarian cyst presented the same characteristics, the fistule having opened into the abdominal cavity. In neither of these cases had any communication with bone taken place.

1193. *Leyden on the Micrococci of Cerebro-Spinal Meningitis.*—At a meeting of the Berlin Medical Society, on Feb. 12 (*Deutsche Med. Wochens.*, April 4), Dr. Leyden showed microscopic specimens (with oil-immersion) of micrococci which he had obtained from a case of cerebro-spinal meningitis. They were oval, were mostly in pairs, and presented a faintly tremulous movement. They were similar to those found in pneumonia and erysipelas, but Herr Leyden did not think they were identical. Herr Baginsky mentioned cases of a connection between meningitis and pneumonia, which seemed to show that the exciting cause might be the same in both.

1194. *Kehler on the Fungus of Thrush.*—A book by Kehler on the fungus of thrush is reviewed in the *Deutsche Med. Wochens.*, for May 2, 1883, in which the author gives some valuable results of his experiments. He has found that the fungus is present in the air of lying-in rooms and of wash-houses, and the conidia were found in the feces of infants. He considers it possible that a small proportion of cases, about 10 per cent., may be infected from the vaginal mucus during parturition, but that the majority of cases arise from infection of the nipple or of the India-rubber teat, or from the same baths and towels being used for different children without proper care in cleansing them. Infection may also be conveyed by the finger or rag used to cleanse the child's mouth. Kehler has made many

experiments for the purpose of ascertaining the most favourable medium for the growth and development of the fungus. Starch, dextrine, and solutions of grape, cane, and milk sugar, were among the most favourable, as was also human milk when fresh; the growth was interrupted on its becoming sour. Borax and chlorate of potash were found to be among the substances which favoured development; while the principal among the unfavourable substances were boracic, phosphoric, nitric, hydrochloric, and sulphuric acids, benzoic, acetic, and salicylic acids, and alcohol. Chronic acid, caustic potash, perchloride of iron, and alum were among the substances which had a directly destructive influence on the fungus. Kehler thinks its growth in the mouth is favoured by the slow and only occasional movements of sucking and swallowing, a view which is perhaps supported by the more frequent occurrence of thrush in weakly than in strong children. From these experiments, it appears that neither borax nor chlorate of potash is suitable in the treatment of aphthæ; but Kehler has obtained good results by washing out the mouth with a little white wine.

1195. *Köbner on Fibroma, Neuroma, and Angiectasis in the Region of the Brachial Nerves.*—At the meeting of the Berlin Medical Society on April 4 (*Deutsche Med. Wochens.*, April 25, 1883), Herr Köbner showed a case of fibroma, neuroma, and angiectasis of blood-vessels and lymphatics in the region of the brachial nerve, either congenital, or appearing within the first few months of life. The patient was a young man, aged 21, suffering from slight curvature of the spine, but otherwise healthy, although somewhat weak in development. The whole of the upper part of the right arm, as well as the scapula and clavicle, was atrophied; and along the course of the brachial plexus, and attached to it, could be felt a very great number of larger and smaller swellings, spindle-formed, and very painful on pressure. These extended down to the fore-arm, and were found also on the eighth, ninth, and tenth intercostal nerves, and at the angle of the scapula. There were also seen innumerable enlargements of the blood-vessels and lymphatics, varying from very small vesicles to the size of a hazel-nut. The fingers were completely deformed by rather large, brownish tumours, adherent to the periosteum, considered by Herr Köbner to be fibromatous alterations of neuromata. The nails were strongly curved and cyanotic, and the growth of hair was greater on the affected side. The right arm was weaker than the left, but there was no spontaneous pain, and the patient was not much troubled by the affection. There was no diminution of faradaic or galvanic irritability, and the sensibility was unaffected. One single swelling was said to have been present on the fore-arm at birth, and the others were observed within the first six months.

Alice Ker, M.D.

1196. *Simmonds on Tuberculosis of the Tunica Vaginalis.*—Dr. M. Simmonds of Hamburg points out in a contribution to the *Deutsche Zeitschrift für Chirurgie*, Band xviii., Heft 1 and 2, that at this time, when the pathogenesis of caseous diseases of the testis is much discussed, and no close distinction has yet been made between the caseous masses of chronic inflammation, of syphilis, and of tuberculosis, observations of secondary tubercular deposits on the tunica vaginalis are of importance. But very little attention has hitherto been directed to this condition, and in anatomical and surgical hand-books, and even in the works of Demmie, Waldstein, and

others on tuberculosis of the testis, the only change in the tunica vaginalis to which allusion is made is one of a simple inflammatory nature. Klebs, in his handbook, expresses the opinion that in general tuberculosis the tunica vaginalis always remains free from such deposits as are so frequently observed in the peritoneum. Dr. Simmonds, however, states that tubercular deposit in the tunica vaginalis is by no means a rare occurrence. In cases of general tuberculosis and of phthisis, so long as the testis itself remains intact, the tunica vaginalis of this organ is indeed very rarely affected with tubercle; but, on the other hand, when tubercular disease has involved the testis and caused extensive changes there, then this serous coat in both its parietal and visceral layers will be found studded with deposits. Brief reports are given of eight cases of tuberculosis of the testis that were observed by Dr. Simmonds. In eight of these cases, deposits of tubercle were found in the tunica vaginalis propria. Of the four cases in which no deposit was found on this membrane, in one the sac had been obliterated, and in the other three the tubercular process in the testis was in an early stage. On microscopic examination, the tubercular deposits in the tunica vaginalis did not show any peculiarities of importance. They presented, according to their size, one, three, or more miliary tubercles deposited in a small-celled structure, and made up, as usual, of small round cells and of large epithelial cells and some central giant-cells. The larger deposits were usually caseated. The starting point of the deposit is almost always the serous coat of the testis, but occasionally the growth may start in the tunica albuginea, and as it increases in size bulge forwards under the tunica vaginalis so as not to be readily distinguished from a deposit in this latter membrane. Small cysts of the tunica vaginalis may be readily distinguished even on examination with the naked eye. The distinction, however, between tubercular deposits in this membrane and closely adherent rounded coagula is often found impossible without the help of the microscope. The secondary changes of the tunica vaginalis in tuberculosis do not differ very much from the forms of inflammation that have been observed in other serous membranes, especially the synovial lining of joints. Usually there occurs a serous or sero-fibrinous periorchitis; in rarer instances there is fungous periorchitis with perforation and formation of a fistula, and consequent prolapse of the testicular structure and 'fungus benignus' of the testis.

W. JOHNSON SMITH.

1197. *Litten on the Pathology of the Blood in Pernicious Anæmia*.—Dr. Litten (*Berliner Klin. Wochens.*, July 2) states that in the year 1877 he published observations upon the condition of the blood, in a case that had proved fatal after prolonged lactation. On dissection, all the organs were found pallid; there were extreme fattiness of the heart, retinal hæmorrhages, enlargement of the spleen, and disease in the kidneys; conditions referred to leukaemia and anæmia. The case directed the attention of the author to other conditions in which the blood had undergone pathological changes, whence he has drawn the observation that, in cases of painful or agonising disease terminating rapidly, the blood is often anæmic or leukaemic. The blood examined was obtained from punctures on the extremities, and yielded the same results as that drawn directly from veins. An estimate of the

proportion of red and white corpuscles was formed by the use of Malassez's apparatus. The number of observations made by Dr. Litten amounted to several hundred, derived from forty cases of different kinds, including septicæmia, poisoning by sulphuric acid, pneumonia, phthisis, pernicious anæmia, &c. The general conclusion of the author is that in proportion to the duration and intensity of the agony is the amount of leucocytes in the blood. This condition Dr. Litten considers to be due to arrest of the formation of red corpuscles rather than to a sudden or rapid addition of white corpuscles.

1198. *Peters on the Staining of Tubercle-Bacilli*.—

Dr. Peters, of Bad Elster (*Berliner Klin. Wochens.*, June 11), submits the following mode of double staining of the bacilli without the use of nitric acid, and in much shorter time than is required by Ehrlich's method. A fine section is taken out of alcohol and placed for about a minute in distilled water, then for thirty minutes in a filtered aqueous solution of gentian-violet, prepared with fresh anilin water; then for eighteen hours in absolute alcohol (in a dish or saucer not holding less than 25 grammes), and renewed once or twice in this time. After this it is placed for three minutes in a three per cent. filtered solution of aniline yellow; and then for thirty minutes in absolute alcohol. By a first short washing the bacilli are seen grouped together; by prolonged washing, their structure is rendered distinct. By this plan of treatment the magnified bacilli will be seen of a violet colour, on a yellow ground. Other bacteria may also be coloured by the same process.

1199. *Miller on the Influence of Micro-organisms upon Caries of Human Teeth*.—Mr. Willoughby Miller (*Archiv für Exp. Path.*, Band xxvi.) states that, out of more than a thousand sections of carious teeth which he has minutely examined, he has not failed in a single instance to find a microscopical branching fungus, deep in the bony structure. By the employment of fuchsin, methylin-blue, and Bismarck-brown, bacteria have been detected in masses in both longitudinal and transverse sections of the teeth. The diseased bone-tissue is found to contain a zone of great masses of micrococci, bacilli, and leptothrix threads passing into the dentine canals. The calcareous matter, acted upon by the acids of the mouth, favours their growth, and the consequent destruction of the tooth.

W. B. KESTVEN, M.D.

1200. *Griffini on the Acquired Immunity from Carbuncle*.—To explain the immunity acquired against carbuncle, Pasteur advances the preservative action of the bacillus itself, weakened by cultivation. Chauveau and Toussaint, on the other hand, think that the blood wants the substances necessary to the proliferation of the bacillus anthracis, or suggest the presence in it of substances hurtful to this proliferation. The facts on which this last theory was founded were the absolute absence of bacilli in the fetus of carbuncular mothers, and the absolute immunity of lambs born of an inoculated mother. Professor Griffini (*Gazz. degli Osp.*, No. 60) maintains that the blood of the fetus of cows infected, and which have died of carbuncle, if it do not contain the bacilli, contains, however, spores which may be cultivated; that the serum of the blood of which the bacilli have been killed by a temperature of 55° C. (131° Fahr.) does not produce carbuncle nor immunity, and that therefore the blood used by Toussaint to inoculate must have contained lasting

spores not killed by the above temperature; that lasting spores are found in the blood long before bacilli, which appear only a few hours before death; that spores, filaments, and the bacilli themselves of bacillus anthracis vegetate luxuriantly in the blood of animals protected by Pasteur's method or by a grave carbuncular attack; that in the blood of these cows no microphytes of any kind exist. The author maintains that he has proved that the immunity does not depend on the absence in the blood of substances necessary to the proliferation of the bacillus nor to the existence of substances harmful to their vegetation, neither does it depend on the existence in the blood of microphytes. He therefore holds with Grawitz that the immunity depends on an increased resistance acquired by the elements of the tissues with the inoculations.

1201. *Maffucci on Biliary Atrophy and Hypertrophic Cirrhosis of the Liver.*—The author, convinced that between hepatic sclerosis due to retention of bile and that due to simple inflammation of the biliary passages of the great and small interlobular branches, there are grave etiological and anatomical differences, undertook a series of experiments and anatomical observations which bring him to the following conclusions. 1. Cirrhosis from biliary stasis has altogether a different origin and signification from hypertrophic cirrhosis with jaundice. 2. In cirrhosis from biliary stasis, clinical as well as experimental, a destruction of hepatic parenchyma precedes, which is repaired by new formation of connective tissue and biliary ducts, the epithelium of which starts from pre-existing tubes. 3. In hypertrophic cirrhosis the acini remain intact, their trabeculae are transformed into true embryonic tubes, and the connective tissue accompanies and follows the different phases of the same hepatic parenchyma. 4. Very similar to hypertrophic cirrhosis is the experimental process obtained without retention of bile. 5. In cirrhosis from biliary stasis, as well as in hypertrophic cirrhosis, there is an angiolcolitis; in the first it is owing to the retention of the bile; in the second it depends on various causes, all of which are not yet known. 6. In hypertrophic cirrhosis the irritation of the hepatic parenchyma may arise from the large biliary ducts, as happens in experiments, or from causes that act directly on the parenchyma, as in clinical cases. 7. It is not the new formation of connective tissue which surrounds and invades the acini, nor the new formation of bile-ducts from those preceding, which constitutes the chief character of hypertrophic cirrhosis.

1202. *Freire on Yellow Fever.*—Dr. D. Freire, of Rio de Janeiro, has recently published certain experiments made by him, in which he succeeded in communicating yellow fever to fowls and guinea-pigs, either by injecting into them the blood taken from the heart of a patient who had died of yellow fever, or by transmitting it from one animal to another, or, lastly, by imprisoning a guinea-pig in a space of earth in which a year before was buried the body of a yellow fever patient. In agreement with these experiments, which clearly prove the grave danger to the public health incurred by the burial of persons who have died of yellow fever, the Imperial Government of Brazil has ordered the construction of a cremation furnace, where the bodies of those who die of this disease in the hospital may be incinerated.

1203. *Mendez on the Transmissibility through the Placenta of Acute Virulent Diseases.*—Mendez is of

opinion that, if the poison of these diseases were a solution, it would pass into the blood; but it is not so, being a micro-organism, solid, and of certain dimensions, hence it passes or does not pass according to conditions not well determined, but consisting perhaps in the size of the organism and the porosity of the tissues. The micro-organism of fowl-cholera in the hen and rabbit invades all the organs and all the secretions, the egg and the foetus being invaded by the bacteria, without doubt from the smallness of the micro-organism. The septic vibrio of Pasteur, better studied than any other, is present in all the maternal tissues and liquids, and reaches the foetus of a rabbit without difficulty. It also appears demonstrated that, if the micro-organisms he injected with a capillary syringe into the coverings of the foetus, they are transmitted to the mother but not to the other foetus. Dr. Mendez concludes that the micro-organism of symptomatic carbuncle and septic vibrio, by virtue of their own well-marked movements, pass easily from the mother to the foetus; that the micro-organism of fowl-cholera, from its extreme smallness, can also pass without obstacle from one to the other organism; that the micro-organism of carbuncle properly so-called, in virtue of its greater dimensions and from its immobility, encounters great difficulties in passing through the placenta; but these difficulties are not insurmountable, and sometimes the transmission is effected.

G. D'ARCY ADAMS, M.D.

1204. *Fehleisen on the Pathology of Erysipelas.*—Fehleisen records the following experiments in the pathology of erysipelas (*Centralbl. für Klin. Med.*, No. 11, *Med. Times and Gazette*, April 7, 1883). The presence of the micrococcus was demonstrated in every one of the thirteen cases examined; small pieces of skin were excised for the purpose, and the micro-organism (generally arranged in chains) was detected in the lymphatic vessels and spaces, but never in the blood-vessels. The microzymes were identical with those figured by Koch in his photographs. The next investigations of Fehleisen were attempts to cultivate the organism outside the body. After frequent failures when the fresh contents of the erysipelatoid vessels were employed, Fehleisen succeeded in breeding the micrococcus when the freshly excised pieces of skin were inoculated on the gelatine preparation. After the second day, small white points appeared and gradually increased. These consisted of nothing but micrococci, which increased and multiplied further when inoculated into fresh gelatine preparations. Fehleisen has found similar organisms in connection with other pathological processes, but these never behaved in the same manner as regards the pure cultivation in gelatine. Experiments were also made on rabbits. Seven animals were inoculated on the tip of the ear, with the result that in six well-marked erysipelas was developed; in one case the ear was amputated, and on examination the chains of micrococci were detected in the lymphatic vessels. In addition to the experiments on animals, vaccinations were practised on various affections of the human subject, on the principle that an attack of erysipelas has often cured such diseases as cutaneous tumours, lupus, and carcinoma. In six cases of this sort, erysipelas was induced by the micrococci from an artificial cultivation, and ran a typical course to a favourable termination in every instance. The beneficial therapeutic effects were marked in nearly all the examples. Experiments on disinfection were like-

wise made : these went to show that a 3 per cent. solution of carbolic acid, acting for forty-five seconds, rendered the organisms incapable of further cultivation ; and the same effect was produced by a solution of corrosive sublimate in fifteen seconds.

1205. *Colomiatti on the Bacilli of Herpes Labialis.* Colomiatti (*L'Osservatore, Gazzetta delle Cliniche*, No. 5, 1883) demonstrated to the Royal Academy of Medicine in Turin, bacilli stained with methyl-violet obtained from the vesicles of herpes labialis, usually when the contents had become turbid, they being absent whilst these were clear. He thinks that at first clear serum exudes, and that later on the micro-organisms are carried thither by the circulation. These are not to be distinguished from those found in croupous pneumonia, complicated or not by cerebro-spinal meningitis, or endocarditis. Specially significant, and explaining the critical character of herpes, is their appearance immediately after the subsidence of the febrile symptoms of an ephamera. The edge of the lips is therefore one of the places of excretion for the pyrogenic micro-organisms, which they form for themselves.

1206. *Babès on Ehrlich's Mastzellen.*—Babès says (*Le Progrès Méd.*, No. 23, 1883) that Ehrlich has found cells which are only stained by certain dyes. They are found around vessels and spaces of regions in which nutrition is exaggerated, and in diseases in which analogous conditions exist they are found in great numbers. They are larger than ordinary leucocytes, and may be found a long way from vessels in the thickness of the true skin, or in the papillae. They vary in shape, round or oval, sometimes with prolongations. They are not displayed with methyl violet 1B, or gentian violet. The nuclei stain feebly, but the protoplasm colours more strongly, and is formed of numerous granules of equal size, and round or oval in shape, and very closely approximated. The tissues should be stained for twenty-four hours in watery solution of the dye, then dehydrated with alcohol and mounted in Canada balsam. These cells are stained violet-red, while the remainder of the tissues are violet-blue. Babès thinks that these cells and their contained granules, which are often met with outside of and as if set free from the cells, have possibly been mistaken for cells filled with micrococci and free micrococci in syphilis, lupus, &c., in which they are very abundant, and in which recent observers have described micro-organisms.

1207. *Gibert on a Peculiar Malformation of the Heart.*—Gibert (*Le Progrès Méd.*, No. 23, 1883) describes the heart of a child which died at ten months. He first saw it the day of the birth, when it presented a supra-umbilical abdominal cleft, through which the intestines bulged at each cry, and in the middle line a cord-like substance, which pulsed synchronously with the heart. On subsequent examination, confirmed by dissection, this cord, which grew till it was as thick as the little finger of an adult and 38 millimètres in length, was a prolongation of the apex of the left ventricle, which perforated the diaphragm. Its wall was muscular, and on its inner surface was covered with fleshy pillars, which were continued into the ventricle. It is suggested that the incomplete closure of the diaphragm and abdominal muscles was primary, and that this elongation of the ventricle was the result of the absence of support to the heart.

1208. *Jubel-Renoy on Multiple Cysts of the Liver and Kidneys.*—Jubel-Renoy (*Revue de Méd.*, 1881,

p. 929) records the case of a woman aged 67, who died with dyspnoea and dropsy. *Post mortem*, he found brown atrophy of the heart, adherent pericardium, pleural and peritoneal effusion. The liver and kidneys were both enlarged and studded with cysts, varying in size from a hazel-nut to an orange, filled with clear fluid. The liver-cysts were believed to originate from dilated gall-ducts, around which the connective tissue was increased.

1209. *Malassez on the Tubercle Organism.*—M. Malassez (*Le Progr. Méd.*, No. 20, 1883) reports to the Société de Biologie that he was unable to discover Koch's bacilli in a tubercle from the forearm of a child who died of tubercular meningitis, but he discovered zoogloeoid masses, which, injected under the skin of a rabbit, gave rise to tuberculosis. He does not think these represent an early stage of Koch's bacilli, as he could never find rods in any of them. They differ also from the monas tuberculosis of Klebs.

1210. *Capitan on Dental Erosion.*—M. Capitan (*Le Progr. Méd.*, No. 20, 1883) showed at the Société d'Anthropologie the head of a Newfoundland dog presenting the erosion of the teeth which Parrot and Hutchinson attribute to syphilis. M. Magitot agreed that the lesion was precisely identical with that described in the human subject by these authors. M. Parrot maintained his opinion, and denied the identity of the lesion.

1211. *Vignal on the Tubercle-Bacillus.*—Vignal (*Le Progr. Méd.*, No. 18, 1883) finds that the bacillus tuberculosis resists putrefaction for eighteen days.

1212. *Smith on the Pathology of Diabetes.*—Dr. Shingleton Smith (*Brit. Med. Jour.*, April 7, 1883) relates the history of a case of glycosuria due to disease of the cervical cord, extending upwards to the medulla oblongata, and affecting especially the grey matter. It is to the affection of this latter tissue that he attributes the glycosuria, as in tabes the white matter in this region is frequently extensively diseased, although no sugar appears in the urine.

ROBERT SAUNDY, M.D.

1213. *Manson on a New Fact in the Pathology of Parasitic Organisms.*—In the *Med. Times and Gazette*, Feb. 1883, p. 182, an article appears on the relation of parasites to disease, and attention is drawn to an article by Dr. Manson in the same periodical, p. 189, entitled 'The Intimate Pathology of Filaria Disease,' in which he says that 'there is abundant evidence that filaria sanguinis hominis does not always, or even generally, give rise to disease. As a rule, parasite and host live together for years in perfect harmony.' In answer to the questions, What are the conditions that determine lymph-disease in filaria disease? What is the link between the mature parasite and elephantiasis? How comes it that in but one subject out of many serious disease is the result of the presence of such a tenant? Dr. Manson argues that the mother filaria—residing, let us say, in the lymphatics of the scrotum—whilst naturally viviparous, occasionally aborts. Now, as the embryo filaria born at full time can easily pass through the smallest vessels, whilst the premature embryo is too large to traverse the neighbouring lymphatic glands into which the current sweeps it, the result is that the miniature brood plugs the lymphatics all round the spot where the mother lies, and distension occurs behind the seat of arrested flow, producing lymph-scrotum. The importance of the observations arrived at by Dr. Manson is evident. It is a new way of working

at disease, showing that certain diseases in man may be due, not to the presence of parasites within him, but to processes of disease or disorder in parasites themselves.

1214. *Smith on the Morbid Anatomy and Pathology of Diabetes.*—Dr. Shingleton Smith, in the *Brit. Med. Jour.*, April 1883, p. 657, remarks that not only may diabetes be produced artificially in lower animals by stimulation of the diabetic centre in the medulla oblongata, but recent researches seem to show that irritation of almost any portion of the vaso-motor system may cause glycosuria. Numerous observers have noticed the presence of sugar in the urine in cases of sciatica, and there is an universal accord that injuries of the medulla oblongata, of the lower cervical and upper thoracic ganglia, and of certain connecting filaments of the two, give rise to the presence of sugar in the urine. From cases which Dr. Smith has observed himself, he thinks that the presence or absence of glycosuria may depend on the implication or otherwise of the grey matter of the spinal cord in the cervical region, and from this he infers that the grey matter is the portion of the cord along which the vaso-motor nerves pass. Pavy found that section of the cord between the second and third cervical vertebrae soon gave rise to sugar, but below the third it was ineffectual.

1215. *Paget and Others on Dropping of Fluid from the Nostril Associated with Optic Neuritis.*—In the *Med. Times and Gazette*, Jan. 1883, p. 101, an article with reference to this subject is given, drawing attention to a case of dropping of fluid from the nostril recorded by Sir James Paget in the *Clinical Society's Transactions*, where this symptom was proved to depend solely on polypoid growths in the antrum, whilst the cases recorded by Mr. Priestley Smith and Mr. Nettleship in the number for Jan. 2 of the *Ophthalmic Review*, would seem to show that something still remains to be made out in regard to the pathology of this affection. The fluid was examined in all the cases and found to contain albumen and mucin, but no sugar—which is practically conclusive that the fluid was not cerebrospinal. That severe brain symptoms were present in most of the cases is certain, but how they were caused is a matter not sufficiently evident.

1216. *Cheyne on the Relation of Micro-Organisms to Tuberculosis.*—Mr. Watson Cheyne, in the *Practitioner* for April 1883, gives a report on the relation of micro-organisms to tubercle. An account is given of the principal researches which have lately been made on the subject, together with a full account of Mr. Cheyne's visit to Toulouse and Berlin, where he was able to inspect and report on the various methods by which the investigations were being carried on. The article is supplemented by plates drawn by Mr. Edgar Thurston, which help to complete an excellent and exhaustive article on this important question.

RICHARD NEALE, M.D.

1217. *Quénou on Pathogenesis of Varicose Ulcers.*—A fact which is at present well established is that varicose ulcers really result from the presence of varices. There must, however, be some other existing cause than varices for the production of the ulcer, since the latter is frequently not found in a large number of varicose patients. The other condition is neuritis of the nerve-cords in the leg. It might have been suspected formerly, if the disorders of thermo-sensibility, pointed out by M. Terrier in and around the regions about to become ulcerated,

had been taken into account; and if the numerous troubles of nutrition co-existing with the ulcer had been remarked, such as desquamation and the epidermic abnormal pigmentations, changes in the hair and the nails, pemphigoid eruptions, scars, &c. These various lesions have struck all observers, and especially MM. Verneuil and Reclus. It may be added that the œdema itself, without which varices slightly developed are never found, also testifies to an alteration of the nerves, if the experiments of M. Ranvier may be trusted. M. Quénou (*Révue de Chir.*, Nov. 1882) by his histological researches has discovered that, in all cases of varicose ulcer, examination of the nerves of the leg shows interstitial neuritis, both around and within the fasciculi which first originated around the v.ules of the nerve. This neuritis is not an extension to the nerve of chronic inflammation common to the neighbourhood of the ulcer, since the fragments of nerves examined were taken from a region at some distance from the ulcer. Neither is it an ascending neuritis taking its origin in inflammation of the filaments in the vicinity of the ulcer. If it were so, the sclerosis would only have attacked the nerves, of which the distribution corresponds with the seat of the ulcer. This is not the case. The neuritis originates *in situ*; it is found either in the vicinity of the large veins affected, or more frequently in the varicose dilatations of the venules which serve the nerve-cords. The varicose dilatation is very soon followed by periphlebitis. The periphlebitis very soon propagates itself in the nerve-sheath. Rest cures the varicose ulcer, and also cures the perforating affection which is certainly of trophic origin.

W. VIGNAL.

DISEASES OF THE THROAT AND NOSE.

RECENT PAPERS.

1218. LÖWE.—Epilepsy produced by Hypertrophy of the Nasal Mucous Membrane. (*Revue Mensuelle de Laryngologie*, March 1883.)

1219. WALSHAM.—Some Cases of Deviation of the Nasal Septum: Forcible Straightening: Stellar Division of the Septal Cartilage. (*St. Bartholomew's Hospital Reports*, Vol. xviii., 1882.)

1220. INGALLS.—The Cause of Deflection of the Nasal Septum. (*Archives of Laryngologie*, No. 3, 1883.)

1221. ROBERTS.—Deflection of the Nasal Septum. (*Trans. of the Pennsylvania Med. Society*.)

1222. MCARDLE.—Thickening of the Nasal Septum. (*Brit. Med. Jour.*, Feb. 10, 1883.)

1223. PELTIER.—Fibroid Mucous Polypus of the Posterior Nares. (*Annales de Maladies du Larynx, &c.*, Sept. 1882.)

1224. HARDIE.—Naso-Pharyngeal Tumour: Osteoplastic Section of the Superior Maxilla. (*Brit. Med. Jour.*, May 5, 1883.)

1225. HARDIE.—Tumour Growing from the Base of the Skull in a Man who had suffered Excision of the Superior Maxilla in Childhood. (*Ibid.*)

1226. SHRADY.—Removal of a Large Naso-Pharyngeal Tumour with Extensive Attachments to the Skull. (*New York Med. Record*, Sept. 1882.)

1227. SKIBNEVSKY.—Two Cases of Angina Ludovici treated by Injections of Carbolic Acid. (*Pratch*, 1883, No. 1.)

1228. RYERSON.—Adenoma of the Vault of the Pharynx. (*Canada Lancet* 1882, p. 4.)

1229. WALB.—Chronic Diphtheria of the Pharynx. (*Berliner Klin. Wochens.*, Dec. 11, 1882.)

1230. SUMMERRODT.—A Case of Traumatic Paralysis of the Recurrent Nerve. (*Berliner Klin. Wochenschr.* Dec. 11, 1882.)

1231. HINDENLANG.—The Accumulation of Hardened Masses of Mucus in the Larynx. (*D.utsch: Med. Wochenschr.*, Feb. 28.)

1232. GUSSENBAUER.—Extirpation of the Larynx. (*Wiener Med. Blätter*, April 5.)

1233. PELLIZZARI.—Rhinoscleroma. (*Gazz. Med. Ital. Proc. Venete*, May 5.)

1234. GUALDI.—Hysterical Aphasia and its Special Treatment. (*Lo Spallanzani*, Fasc. 1 and 2, 1883; and *Il Pisani*, Disp. 4, 5, and 6.)

ART. 1218. Löwe on *Epilepsy produced by Hypertrophy of the Nasal Mucous Membrane*.—The patient (*Revue Mensuelle de Laryngologie*, March 1883) aged 15 years, had suffered from constantly recurring epileptic fits since he was ten years old. He had had one fit when he was two years old. There was chronic swelling of the mucous membrane of the left inferior turbinated bone, a mucous polypus filled the superior part of the left nasal passage, and adenoid growths existed in the vault of the pharynx. The polypus was removed by the galvano-cautery, and the hypertrophied inferior turbinated bone cauterised. The epilepsy almost disappeared. Dr. Löwe believes that there was some central predisposing cause of the fits, and that the hypertrophy of the mucous membrane was only the exciting cause.

1222. McArdle on *Thickening of the Nasal Septum*.—This specimen was exhibited at a meeting of the Pathological Section of the Academy of Medicine in Ireland (*Brit. Med. Jour.*, Feb. 10, 1883, p. 256). The mucous membrane covering the septum nasi and turbinated bones was greatly thickened, so that the nasal passages were almost occluded. The patient died of pneumonia.

1224. Hardie on *Naso-pharyngeal Tumour: Osteoplastic Section of Superior Maxilla*.—Mr. Hardie showed this case at the Manchester Medical Society (*Brit. Med. Jour.*, May 5, 1883). The growth had existed four years, and projected into the zygomatic and sphenomaxillary fossæ. The upper jaw-bone was turned down by cutting through the malar and the alveolar border and the nasal process of the superior maxillary bone. The finger was then thrust into the nostril, and the inner wall of the antrum gave way, allowing the growth to be enucleated from the sinuses. Its attachment to the base of the skull was separated by a raspatory. The maxilla was then replaced, and secured by sutures. The patient made a good recovery. The growth was a fibrosarcoma.

1225. Hardie on *a Tumour Growing from the Base of the Skull in a Man who had undergone Excision of the Superior Maxilla in Childhood: Removal*.—Mr. Hardie showed this case also at the Manchester Medical Society (*Ibid.*). There was a scar of Ferguson's incision for removal of the maxilla, and the site of the bone was occupied by a rounded tumour, growing from the base of the skull. The growth was removed by an incision through the old cicatrix, and the patient made a rapid recovery. The growth was a myeloid sarcoma.

1226. Shady on *the Removal of a Large Naso-pharyngeal Tumour with Extensive Attachments to the Skull*.—This case is reported in the *New York Medical Record*, Sept. 1882. The patient, aged 14, first had symptoms of partial occlusion of the nostril four years ago; a year subsequently, a

polypus was discovered and removed, and the symptoms ceased. They recommenced in a few months, the growth reappeared, and slightly increased in size. The countenance was considerably disfigured, a movable tumour was found in the substance of the left cheek, the soft palate was greatly expanded and pressed forward by a growth behind, and on exploring the naso-pharynx a fibrous tumour was found extending across the nasal septum into the right posterior nares; it was attached to the basilar process of the occipital bone, to the adjoining left side of the body of the sphenoid, and to the internal plate of the left pterygoid process. Although unconnected with the tumour in the cheek, it was suspected that it had extended into the sphenomaxillary fossæ. There was no impairment of vision, nor any brain-symptom. Partial resection of the jaw, with preliminary laryngotomy and plugging of the pharynx, was finally determined upon. The tumour, when removed, was equal in size to an orange. It extended in various directions, and its extirpation was attended with unexpected difficulty. The operation lasted thirty minutes. Much blood was lost, but not sufficient to account for the death of the patient, which took place within an hour. At the necropsy, a fibrous tumour of the size of a horse-chestnut was found attached by inflammatory adhesions to the under surface of the left middle lobe of the cerebrum, and was evidently continuous with the naso-pharyngeal tumour. The floor of the cranial cavity and vicinity was found to have escaped injury, save at the foramen lacerum medium, which was enlarged by absorption of its bony margins.

W. J. WALSHAM.

1227. Skibnevsky on *Two Cases of Angina Ludovici Treated by Injections of Carbolic Acid*.—In 1875 Dr. Bertels described a case of cyanche sublingualis, in which parenchymatous injections of phenol not only saved the patient's life, but led to a rapid recovery without any suppuration or sloughing of the cellular tissue. His method proved to be equally successful in two cases of angina Ludovici, published by Dr. A. Skibnevsky in the *Vratch*, 1883, No. 1. Both patients, peasant women, aged 40 and 27, presented stone hard painless swelling of the whole anterior aspect of the neck, from the chin down to the clavicles; extreme tension and darkish discoloration of the integuments within the region affected; a very considerable tumefaction of the tongue, which was immobilised and pressed to the hard palate by the tumour projecting from the floor of the mouth; extreme cyanosis of the face; difficulty of respiration and swallowing; weak pulse, 100 to 140; a febrile temperature (from 38.5° to 40.2° C. = 101.3° to 104.3° F.); restlessness from the feeling of suffocation, &c. The effects of Bertels' method of treatment were in both cases very rapid. The subjective phenomena were relieved almost immediately after the first injections; the tumefaction of the tongue, and of the floor of the mouth and neck, disappeared within two and five days respectively. The author used a two per cent. solution of phenol, which was injected alternately on each side of the swollen region, into the very parenchyma of the induration. In one of the cases 15 injections were used, equal to 12 grains of the drug (first day, 1; second day, 4; third day, 4; fourth and fifth days, 3 in each); in the other only six (3 daily in two successive days).

V. IDELSON, M.D.

1229. Walb on *Chronic Diphtheria of the Pharynx*.—Dr. Walb, of Bonn, writes on this subject

in the *Berliner Klin. Wochens.*, Dec. 11, 1882. Numerous as are cases of diphtheria, there are yet many cases wrongly so called. Spreading follicular inflammation, and superficial ulceration present in acute exanthemata, have often been mistaken for diphtheria. In the slow decline of diphtheritic disease, the morbid secretion, not being easily removed by gargles, spreads infection and the malady becomes chronic, passing from the upper part of the pharynx into the posterior nares and middle ear, with an offensive purulent discharge. This form is less frequently met with than others. A still less frequently observed form of chronic diphtheria has been more recently observed. Dr. Walb refers to twelve cases in which the ulceration of the pharynx could be traced to a syphilitic or scrofulous constitution—a form of ulceration which sometimes leads to extensive destruction of the parts. In some cases where the ulceration advanced towards the posterior walls of the pharynx and the soft palate and upper part of the œsophagus, it was attended by severe pains radiating from the orbit over the side of the head and implicating the middle ear. As the ulceration of the soft palate spread, the parts assumed a red, sometimes a livid colour and presented at the edge of the palate a hard and leathery consistence. The disturbance of health was severe, but not febrile. The destructive character of the disease is doubtless due to conditions previously existing in the constitution, e.g. syphilis or tuberculosis which predispose to diphtheritic ulceration. With reference to treatment, the author employs antiseptics, carefully removing all sloughs and morbid secretion, mopping freely with carbolic acid or iodoform, and subsequently using nitrate of silver, at the same time administering remedies suitable to the constitutional predisposition.

1230. *Sommerbrodt on a Case of Traumatic Paralysis of the Recurrent Nerves*.—Dr. J. Sommerbrodt, of Breslau (*Berliner Klin. Wochens.*, Dec. 11, 1882), describes the case of Mrs. E. K., aged 22, who, in July last, had tincture of iodine injected into a bronchocele several times. On the last occasion she uttered in a hoarse voice, 'I cannot speak.' For fourteen days she remained voiceless. After this she recovered so far that her voice was only hoarse and weak, in which state she continued until March 17, when she came under the care of Dr. Sommerbrodt. The laryngoscope showed the mucous membrane of the larynx to be generally normal, the vocal cords white. In quiet breathing, all parts of the larynx moved symmetrically. Deep inspiration altered the relative position of parts slightly by a trifling bending outwards of the true vocal cord on the right side. The parts on the right side moved freely, those on the left side but very slightly. The voice remained hoarse, and the patient was submitted to faradisation by her medical attendant at home until May, when she was again seen by Dr. Sommerbrodt. After entering fully into details, the author expresses the opinion that the whole interest of the case centres exclusively in the circumstance that, with traumatic complete paralysis of the left recurrent nerve, there should supervene also persistent paralysis of the parts supplied by the right recurrent nerve. When the laryngoscopic results are analysed, apart from the complete loss of motion of the left side of the larynx, there are seen, in phonation and respiration, the following conditions, complete immobility of the right vocal cord in deep inspiration, indicating paralysis of the

right crico-arytenoid posticus muscle; imperfect movements of parts in phonation, also pointing to paralysis of the right lateral arytenoid muscle, and of the thyro-arytenoid muscle. Thus there was a complete left-sided, and incomplete right-sided, paralysis of the recurrent nerves, affecting more the opening than the closure of the glottis. This parietic condition of the right side involves the loss of compensatory power for the paralysis of the left side of the larynx. The influence of traumatic paralysis on one side in effecting a double paralysis is striking at first sight, since cases are not unfrequent in which, from other causes, one-sided paralysis of the recurrent has been met with. It has incidentally occurred to the author that in two cases the injection of tincture of iodine has produced a similar one-sided paralysis, but the cases did not correspond with that now recorded. Whether in this case there may be a lesion of the nucleus of the nervus accessorius is not easy to determine, although the author inclines to that view. W. B. KESTIVEN, M.D.

1231. *Hindenlang on the Accumulation of Hardened Masses of Mucus in the Larynx and Trachea*.—In the *Deutsche Med. Wochens.*, Feb. 23, 1883, Dr. Hindenlang relates a case which was treated in the hospital at Freiburg, in August 1881, where hardened masses of mucus had accumulated in the larynx, immediately below the vocal cords, causing marked difficulty of breathing, only a small space being left for the passage of air. On microscopical examination, the pieces which were brought up by the laryngeal sound were found to be full of fungi with their spores, mixed with cells of epithelium, pus, and mucus, few threads of mycelium being, however, present. The epiglottis, and so much of the larynx as was visible, was injected and reddened, but no swelling was found. The patient was a farmer, 21 years of age, who had always been healthy, although somewhat weakly, and who suffered from no constitutional ailment of any kind. The thorax and abdomen were perfectly healthy, but the mucous membrane of the nasal and pharyngeal cavities was injected and granular, and the secretion of mucus excessive. No fungi were, however, found in the mucus collected from either anterior or posterior nares. There was no history of syphilis or of scrofula, or of anything which could explain these conditions. The important question was to decide whether the fungus had been developed in its present situation, or had been introduced from without. Professor Rees, of Erlangen, and Professor Cohn, of Breslau, judging from the condition in which the mould was found, which is described in detail, gave it as their opinion that the nests of fungus had been conveyed entire into the larynx and trachea. The source of the spores was evidently the land on which the patient had worked; but the favourable soil for their accumulation could only be found in an unhealthy condition of the mucous membrane, such as was present in this case. The absence of fungus in the nose and pharynx, where the mucous membrane was equally unhealthy, may have been due to the expulsion of the inspired dust by sneezing and hawking; or the patient might have breathed entirely through the mouth, on account of the embarrassment to respiration. The treatment consisted of inhalation of 2½ per cent. carbolic solution, which loosened the inspissated mucus in the larynx, and permitted it to be expectorated. After a few days no more fungus could be detected, and, as the secretion had much diminished through the insufflation of iodoform, the

patient, although not quite recovered, left the hospital, and withdrew from further observation.

1232. *Gussenbauer on Extirpation of the Larynx.* At a meeting of the Society of German Physicians in Prague, on March 16 (*Wiener Med. Blätter*, April 5), Prof. Gussenbauer showed a case of successful extirpation of the larynx on account of carcinoma arising from the left vocal cord, and involving the perichondrium and the left plate of the thyroid cartilage. The diseased tissues were removed on Feb. 5, the epiglottis, the ligament ary-epiglottic, and the mucous membrane passing from the arytenoid cartilages to the œsophagus being preserved. The healing of the wound was without any drawback, and with the assistance of a tube the patient could speak in a good distinct voice.

ALICE KER, M.D.

1233. *Pellizzari on Rhinoscleroma.*—Prof. C. Pellizzari (*Gazz. Med. Ital. Prov. Venete*, May 5) defines rhinoscleroma as a special disease, which has for point of departure the nasal fossæ, and which spreads very slowly either forward in the cartilage of the nose and the neighbouring parts, or backwards to the soft palate, fauces, larynx, and trachea, remaining always a local affection and not directly causing the death of the subject. Among the disposing causes he puts with Mikulicz hereditary syphilis, and as a determining cause the irritation of tobacco. The first symptoms are like those of chronic coryza, and most frequently of the left side; in almost all cases polypiform masses are found in the nose, which quickly return after extirpation. He traces the course of the disease, how it gradually infiltrates the cartilages, periosteum, and bone; gives the various complications, and distinguishes it from chronic coryza, cheloid, epithelioma, and syphilitic tubercle. The prognosis is bad. Iodo-mercurial treatment is best, with appropriate local treatment. He sums up the characteristics of rhinoscleroma as follows:—appearance of round cells in the connective of the mucous membrane and skin of the naso-pharyngeal region, and successive infiltration of the neighbouring tissues; accumulation of these cells round the vessels; consequent disturbances of nutrition of the sudoriparous, muciparous, and sebaceous glands; falling out of the hairs; multiplication of the round cells and partial fusion; consecutive partial induration of the affected tissues, or appearance of fungosity and swelling; substitution of a fibrous retractile tissue and consequent deformities; passage to the progressive phases of fibrous tissue, hence cartilaginous and bony new formations; hyaline or colloid degeneration of the epithelium, muscles, and cartilage; no repetition of the malady at a distance. He confirms the presence of bacilli in the elements of infiltrations; he saw these in the round cells, especially those affected by hyaline degeneration.

1234. *Gualdi on Hysterical Aphonia and its Special Treatment.*—In a paper read before the Royal Academy of Medicine in Rome, Dr. Gualdi (*Lo Spallanzani*, Fasc. i., ii., 1883) narrates the following case. A sister of mercy, strong and healthy, had been aphonic for three years, and under various treatment, without experiencing relief. The aphonia began suddenly; there was cutaneous anæsthesia in various points of the submaxillary region; the larynx was anæsthetic, the fauces were narrowed inferiorly by the contraction of the inferior constrictor of the pharynx, thus clenching the diagnosis, and proving the possibility of cure. Dr. Gualdi

prescribed the following mixture:—Assafœtida, 8 grammes (3iij); acetate of ammonia, 30 grammes (3j); syrup, 30 grammes (3j); water, 90 grammes (3iij). A teaspoonful every half hour. On the day following she was still aphonic, but it was noticed that there was less difficulty in emitting the voice. On the third day she was no longer aphonic, but spoke hoarsely; and on the fourth the voice was clear and resonant. In hysterical aphonia there is abduction of the vocal cord; there is always spasm of the dilators, though the malady may begin with paralysis of the constrictors. The spasm of the dilators may exist without paralysis of the constrictors, but not the paralysis without the spasm. Assafœtida is the sovereign remedy, because its antispasmodic action is directly exerted on the larynx, on which it has an elective action. The remedy must be administered in large doses, and at frequent intervals. G. D'ARCY ADAMS, M.D.

SYPHILOGRAPHY.

RECENT PAPERS.

1235. WINTER.—Observations on Syphilis. (*Medicinisch-Chirurg. Centralblatt*, No. 7, 1883.)

1236. BLACK.—Solution of Perchloride of Mercury in Gonorrhœa. (*Ibid.*, March, p. 456.)

1237. ZEISSL AND NEUMANN.—Syphilitic Sclerosis of the Lips. (*Wiener Allgem. Med. Zeitung*, Nos. 10 and 13.)

1238. OWEN.—Pseudo-paralytic Syphilitic Perichondrosis. (*Mittheil. Med. Miscellany*, May.)

1239. MARTINEAU.—The Salts of Gold in Syphilis. (*Société de Théor.*)

1240. ROVIGI, A.—Diagnostic Signs of Syphilitic Disease of the Brain. (*Lo Sperimentale*, April 1883.)

1241. LUCAS.—Syphilitic Gumma of the Pharynx. (*Practitioner*, February.)

1242. PELLIZZARI, CELSO.—On the Accidental Transmission of Syphilis. (*Giorn. Ital. delle Mal. Ven. e della Pelle*, Fasc. iv., v., vi., 1882.)

1243. LEBLOD ET FISSIAUX.—On the Use of Resorcin in the Treatment of Soft Chancres in Women. (*Annales de Gynécologie*, Jan. 1883.)

1244. SMIRNOFF.—On the Treatment of Syphilis by Subcutaneous Injection of Calomel. (Helsingfors, 1883.)

1245. FERRARI.—A Contribution to the Pathology and Clinical Features of Ulcerating Folliculitis. (*Giorn. Ital. delle Mal. Ven. e della Pelle*, Fasc. i. 1883.)

1246. ZEISSL.—The Treatment of Bubo and the Use of Iodoform. (*Allgem. Wien. Med. Zeitung*, No. 2, 1883.)

1247. WIDERHOFER.—Melæna in Inherited Syphilis. (*Allgem. Wien. Med. Zeitung*, No. 4, 1883.)

1248. LANNELONGUE.—A Case of Inherited Syphilis with General Rachitis. (*Bull. et Mém. de la Soc. de Chirurgie*, No. 2, 1883.)

1249. NEUMANN.—Is Syphilis Exclusively a Disease of Human Beings, or do Animals also suffer from it? (*Wien. Med. Wochenschrift*, Nos. 8 and 9, 1883.)

1250. NEUMANN.—Primary Syphilitic Sore of the Breast. (*Allgem. Wien. Med. Zeitung*, No. 9, 1883.)

1251. NEUMANN.—Indurated Sore of the Lip. (*Allgem. Wien. Med. Zeitung*, No. 10, 1883.)

1252. PARROT.—On the Relation of Syphilis to Rickets. (*Gaz. des Hôpitaux*, No. 23, 1883.)

1253. ESCHBAUM.—On the Etiology of Gonorrhœa (*Deutsche Med. Wochenschr.*, No. 13, 1883.)

1254. PICK.—On the Influence of Erysipelas on Syphilis. (*Wien. Med. Presse, und Centralbl. für Chir.*, No. 17, 1883.)

1255. SCHEUBE.—The History of Syphilis. (Virchow's *Archiv*, Heft 3, 1883.)

1256. SIMS.—The Treatment of Syphilis. (*British Med. Jour.*, March 10, 1883.)

1257. STERNBERG.—The Micrococcus of Gonorrhœal pus. Second paper. (*Phil. Med. News*, March 24, 1883.)

1258. LLOYD.—Gummata of the Tongue in Hereditary Syphilis. (*Lancet*, April 14, 1883.)

1259. WHITNEY.—On the Existence of Syphilis in America before the Discovery by Columbus. (*Boston Med. and Surg. Jour.*, April 19, 1883.)

1260. CURTIS, H. H.—On Hot Water Retrojection in the Treatment of Gonorrhœa. (*New York Med. Record*, April 21, 1883.)

1261. KIDD.—Congenital Syphilis of the Larynx. (*Lancet*, April 28, 1883.)

ART. 1235. *Winter on the Unity of Syphilis, Chancroid, Venereal Warts, Balanitis, and Gonorrhœa.*—After long observation of a large number of cases, Dr. Moritz Winter, of Brunn, Moravia, has arrived at the startling conclusion that 'the venereal disease' is more truly one single affection manifested in different forms, than it was ever held to be before the days of Hunter and Ricord. He sums up his opinions under three heads. Syphilis, in the first place, is the primitive cause of all venereal diseases. Were there no syphilis, there would be no soft sores, no venereal warts, and no infective catarrh of the urethra. Secondly, soft chancre is an immediate modification of the true syphilitic virus (*Tochterkrankheit*) derived from a subject infected with syphilis. It settles itself upon its victim as a disease *sui generis*, and never undergoes return to its original syphilitic type. Henceforth it can only serve as a gateway for the admission of unmodified syphilis. Lastly, Dr. Winter believes that the venereal wart and gonorrhœa together form a secondary descendant of true syphilis (*Enkelkrankheit*). As the syphilitic virus becomes modified into chancroid virus, so does chancroid become modified into a special poison which, derived from a chancroid patient, causes warts or gonorrhœa in the recipient. After giving cases where chancroid has been observed in patients who have had connection with syphilitic subjects, Dr. Winter describes an instance of the second condition. A commercial clerk consulted him last autumn for the cure of multiple soft sores along the reflexion of the prepuce on to the glans. These were healed by the application of iodoform. In a short time (*sic*), the patient returned, with warts on the under side of the penis. His urethra opened abnormally, by the side of the frænum; in fact, rudimentary hypospadias existed. One of the warty growths extended to the urethral orifice, and, a day or two later, all the symptoms of gonorrhœa appeared, and proved most difficult to cure. Dr. Winter thinks that there can be hardly any doubt that the urethral discharge was derived from the warts, and the warts from the soft sores, in this case. Michaelis, in his *Lehrbuch der Syphilis* (1859), has already described a specific balanitis, causing the growth of warts if neglected, and always more severe than simple inflammation of the glans due to irritation. According to Winter, the severer form would represent an extremely mild modification of the syphilitic virus.

ALBAN DORAN.

1236. *Black on Solution of Perchloride of Mercuric in Gonorrhœa.*—Dr. Campbell Black, of Glasgow, in the *Brit. Med. Jour.*, March 1888, p. 456, refers to a

paper by Dr. Leistikoff read before the Berlin Charité Medical Society, detailing the results of his researches on the gonorrhœal bacteria first discovered by Neisser. Dr. Leistikoff recommends a weak solution as the best means of treatment, and Dr. Black draws attention to a paper he sent to the *Lancet* in April 1870, where he recommends a solution of one or two grains of bichloride of mercury to eight ounces of water in obstinate cases of gleet.

RICHARD NEALE, M.D.

1237. *Zeissl and Neumann on Syphilitic Sclerosis of the Lips.*—Professor Zeissl (*Wien. Allgem. Med. Zeit.*, No. 13, 1883) records two cases of primary sclerosis of the upper and lower lips respectively. Professor Neumann (*ibid.*, No. 10) relates particulars of a single case of the same affection. In all the cases the diagnosis was confirmed by clear history of infection, and by the sequence of secondary symptoms. The local changes consisted in hard rounded tumours with irregularly ulcerating or encrusted surfaces, seated at the junction of the skin and mucous membrane, and slightly raised above the surface. The submaxillary glands, even in the cases where the tumour was situated in the upper lip, were enlarged and infiltrated within a few days of the first appearance of the primary affection of the lips, and herein differed from cases of epithelioma, which in their general characteristics they resembled. The hardness of the primary tumours showed that the condition was one rather of sclerosis, than of a papular eruption with surrounding infiltration.

E. CLIFFORD BEALE, M.B.

1238. *Owen on Pseudo-paralytic Syphilitic Perichondrosis.*—Mr. Edmund Owen, in the *Midland Medical Miscellany* for May, records two cases of this disease, and calls attention to the fact that this form of congenital syphilis is not uncommon. The first noticeable symptoms are the lifeless condition of the limb and its arrested development. The author suggests the habitual practice of running the finger over the epiphysal regions of the long bones, wherever painful juxta-articular swellings give rise to a suspicion of congenital syphilis. Diagnosis from rickets is effected by the possibility of asymmetry, the absence of 'beaded' ribs, and the tenderness and paralysis; while the sudden onset, the painlessness, and the late appearance of infantile paralysis, distinguish this latter disease from the one under consideration. In infantile paralysis also, the non-implication of the joints and non-diminution of range of movements aid in effecting a diagnosis, while the rapid improvement under mercury (by inunction of blue ointment) speedily clears up any remaining difficulty.

1239. *Martineau on the Salts of Gold in Syphilis.*—M. Martineau, in a communication to the *Société de Thérapie*, has prescribed the following in doses of from one to three teaspoonfuls daily. R. chloride of gold and chloride of sodium aa 1 gramme, water 1,000 grammes. Under its influence, old-standing syphilitic ulcers, incurable by ordinary means, have taken on a healthy action and healed.

K. W. MILLICAN.

1240. *Rovighi on the Diagnostic Signs of Syphilitic Brain Disease.*—A. Rovighi says (*Lo Sperimentale*, April 1883) that no symptom is exclusive of this affection; nor is there any encephalic disorder that may not be the product of syphilitic infection. The diagnosis of syphilitic disease of the brain is very difficult, and can only be inferred from the irregularity, variableness, instantaneousness, and fugacity

of the forms it may present. Every episode of cerebral syphilis may remain separate and distinct; or, on the other hand, they may be united, interlaced, and derived one from the other. The anomalous character and strangeness of the phenomena is one of the surest diagnostic signs. Diligent inquiry as to syphilitic antecedents and concomitant signs must furnish secure, rational, and objective base to substantiate what at first was only a suspicion or subjective belief. The evolution of cerebral syphilitic disease may be modified and arrested by specific treatment. This, then, often reveals the nature of the disease; and is as it were the 'reagent' for the diagnosis. All authors allow great value to this effect of specific treatment, especially when it gives positive results. The virus may have induced lesions so profound and destructive of the cerebral substance that the action of mercury and iodine may prove of no avail. Moreover, there are individuals manifestly syphilitic, who, from special constitutions, or idiosyncrasy, resist the influence of these remedies.

G. D'ARCY ADAMS, M.D.

1241. *Lucas on Syphilitic Gumma of the Pharynx.* In an abstract of a clinical lecture on syphilitic gumma of the pharynx (*The Practitioner*, Feb. 1883), Mr. R. Clement Lucas has recorded two well-marked examples of this affection. The subject of the first case was a woman, 50 years of age, who denied all knowledge of syphilitic infection, but gave a suspicious family history, and had suffered from gummatous swellings and ulcers, and also from rheumatic pains in the legs and shoulders. About Christmas, 1879, she first began to experience difficulty in swallowing, without sore throat, and was noticed to snore badly during sleep. The difficulty in swallowing gradually increased, in consequence of which the patient became much emaciated. Much difficulty was experienced in breathing, and any slight exertion calling for increased respiration excited a croupy noise and sense of suffocation. After those symptoms had been gradually developing during nine months, the patient first applied to Mr. Lucas. A large swelling covered by mucous membrane was then observed, blocking up the pharynx and pressing forward over the top of the larynx, having the appearance of a postpharyngeal abscess, but which, though soft, was not impressible and elastic like a collection of pus. The patient was at once placed on large doses of iodide of potassium, and under this treatment the pharyngeal swelling was soon completely absorbed. The second case is one of a large excavated ulcer of the pharynx in a man, aged 53, with a clear history of syphilis, and presenting well-marked syphilitic lesions on the surface of the body. On the administration of iodide of potassium in ten-grain doses, the ulcer in the pharynx took on a more healthy appearance, and at the end of a month was completely healed. Gumma of the back of the pharynx, Mr. Lucas states, is not common, and he knows of no recorded case similar to that of the woman where a syphiloma had formed in this structure, of such magnitude as to cause almost complete obstruction to deglutition and to interfere seriously with respiration. There are, it is pointed out, two other tumours in this situation with which this syphiloma might have been confounded, viz., fatty tumour, and aneurism of the internal carotid artery. A case, believed to be unique, is reported of fatty tumour commencing in the cellular tissue behind the pharynx in a child, aged 4, which came under the author's notice about five years ago.

Aneurism of the internal carotid is by no means common, but an instance is alluded to by Mr. Lucas where the tumour projected into the pharynx and caused much dysphagia. The fact that it pulsated, and that it was reduced in size by pressure on the common carotid sufficed to distinguish it from other tumours in this situation. Retropharyngeal abscess is usually associated with advanced disease of the bodies of the second or third cervical vertebra, though after one of the exanthemata of children, it would appear to occur occasionally independently of bone-disease, and, though very dangerous, is not necessarily fatal.

W. JOHNSON SMITH.

1242. *Pellizzari on the Accidental Transmission of Syphilis.*—In a long paper on this subject, published in the *Giornale Ital. delle Mal. Ven. e della Pelle* (Fasc. iv., v., vi., 1882), Dr. Celso Pellizzari, of Florence, discusses very fully many of the more unusual ways in which syphilis may spread from one person to another, more especially among members of the same family. The question is considered under three heads—viz., 1, syphilis in nurses; 2, acquired syphilis in infants; 3, extragenital infecting sores in adults. Besides a record of forty-one cases detailed in illustration of various points connected with the subject, numerous others, which have been under the author's care or observation, are mentioned. As regards syphilis in nurses, acquired by suckling diseased children, the author states that since July 1876 he has observed sixty-nine cases of the kind, after excluding all in which the initial lesion or its traces could not be found on the breast. Of these sixty-nine women, it was ascertained beyond doubt that more than one-third had already infected their husbands at the time when they first came under observation. Twelve cases of contagion by suckling are given in full, and in several of them the disease proved to be exceedingly severe and obstinate. One of them (Case 12) may be quoted as an instance of long duration, as well as of the late period of the disease at which transmissible power to the offspring may be retained. The case is that of a family named Simoni, who have been at various times under the author's observation. The mother, a healthy woman, was infected on the breast by a syphilitic child in 1862. She communicated the disease to her own son (whom she also suckled), who died of the disease. Afterwards, her husband also became infected. From that time, both husband and wife were under treatment on several occasions. Nevertheless, the next four children were born dead. Then two were born alive, but died shortly afterwards. A seventh child was saved with difficulty by specific treatment. The eighth child, when five months old, was brought for treatment in July 1877 with clear signs of inherited syphilis, although fifteen years had elapsed since the mother contracted the disease. The conclusions arrived at by the author are these. 1. The transmission of syphilis from children to nurses by suckling is much more common than is generally believed. 2. Only one occasion of contact may be sufficient for contagion. 3. Syphilis thus contracted by nurses spreads most frequently to their husbands and children. 4. Syphilis acquired by suckling a diseased child is of exceptional gravity. The second chapter, which deals with acquired syphilis in infants, is based on fifty-four cases, eleven of which are given in detail. The conclusions drawn from these are the following. 1. Most young children who acquire syphilis do so by the mouth, and usually

by direct contact with the breast of the mother or nurse. 2. Mucous patches of the mouth are the most frequent source of contagion to the child's parents or to others who may have the care of it. 3. After the mouth, the ano-genital region is the most frequent seat of contagion, which may be conveyed indirectly by means of articles of clothing, or by other articles, such as sponges or clyster-pipes. 4. Acquired syphilis in children, if not so grave as the inherited form of disease, is yet very important, from the facility with which it is communicated to other members of a family. The third chapter treats of extragenital contagion in the adult, and eighteen cases of this kind are given in illustration of the different modes in which contagion may occur, often in a perfectly innocent way, and quite independently of sexual relations. On this part of the subject the author's conclusions are as follows. 1. The syphilitic virus may be absorbed even from an unbroken surface. 2. Contagion may be mediate, and that any object in general use may become the vehicle of the virus. 3. The primary sore may be overlooked, or may assume characters which lead to its being mistaken for other lesions.

1243. *Leblond and Fissiaux on the Use of Resorcine in the Treatment of Soft Chancres in Women.*—In the *Annales de Gynécologie*, January 1883, MM. Leblond and Fissiaux report six cases in which resorcine in powder or solution was employed as a local application. The average duration of these was twenty-three days, while of five cases treated with iodoform the average was thirty-eight days. Thus the authors consider resorcine superior to iodoform. The former also has a great advantage over the latter preparation in being inodorous. When applied to a sore, it causes a slightly painful sensation, which usually disappears rapidly. The drug may be applied simply powdered, or in a solution of the strength of 15 grains to the ounce of distilled water.

1247. *Widerhofer on Melæna in Inherited Syphilis.*—In this case (*Allgem. Wien. Med. Zeitung*, No. 4, 1883), a syphilitic child suffered from melæna, and died when it was twelve days old. *Post mortem*, gummata were found in the liver which was also much enlarged. A squamous syphilide was present on the soles of both feet. Prof. Widerhofer considered the melæna to be due to blood-dyscrasia caused by syphilis.

1249. *Neumann on the Question of the Occurrence of Syphilis in Animals.*—In this paper (*Wien. Med. Wochenschrift*, Nos. 8 and 9, 1883) Prof. Neumann first gives a historical sketch of the experiments made by various observers on inoculation of the lower animals with syphilitic and chancreous secretions. He then relates his own experiments on eleven animals, viz., three apes, two horses, a hare, a rabbit, a guinea-pig, a marten, a white rat, and a cat. These animals were carefully inoculated with all due precaution, and in some cases on several occasions, with the freshly removed secretion of the initial lesion of syphilis or of the soft chancre. In some cases also the primary syphilitic induration was excised, and inserted beneath the skin of the animal. The length of time after inoculation during which the animals were kept under observation varied; in some it was only a few weeks, whilst in others the duration is not given. In the following instance, however, the animal, a female ape, was kept under close observation for four and a half months, during

which time it was inoculated no less than eight separate times. The first experiment took place on Feb. 17, when the ape was inoculated on the head in two places with the discharge of a recent indurated sore. A few days afterwards, a small nodule appeared. There was no enlargement of the lymphatic glands. On March 17 the nodule had disappeared, and another inoculation was made near to the former. A soft doughy infiltration developed at the site of this inoculation, and on the 27th pus exuded from it on pressure. On April 3 all traces had disappeared, and the animal was again inoculated in two places with the secretion of an indurated sore, the result being negative. On May 13 a freshly excised primary syphilitic induration was implanted beneath the animal's skin, and the wound closed with three sutures. Primary union took place. An abscess afterwards formed, but by May 28 it had quite healed. On June 8 the animal was again inoculated with the discharge of an indurated sore but without result. Finally, on June 20, the pus of a soft chancre was inoculated, also without success. From his various experiments, the author concludes that syphilis is not communicable to the lower animals; for though local reaction sometimes occurred at the site of inoculation, nothing like either a hard or a soft chancre was ever produced.

1250. *Neumann on Primary Syphilitic Sores of the Breast.*—With regard to the diagnosis of a case of this kind (*Allgem. Wien. Med. Zeitung*, No. 9, 1883), Prof. Neumann remarks that eczema is one of the most frequent affections of the female breast, but that it always affects both breasts, and spreads outwards from the nipple as a centre. Eczema of the breast is never spontaneous. It occurs in cases of scabies, and also in mothers who are suckling their children. In the latter case the nipple itself is much swollen, especially if the child be allowed to suck on the affected side, and at the base of the nipple there are often painful fissures. Primary syphilitic sores of the breast begin as brownish red, more or less solid, moist or scaly infiltrations, and, which is most important for the diagnosis, are accompanied by indolent enlargement of the corresponding axillary glands.

1254. *Pick on the Influence of Erysipelas on Syphilis.*—The following two cases of gumma, in which an intercurrent attack of erysipelas was connected with rapid resorption of the new growths, occurred in the clinic of Prof. Pick (*Centr. bl. für Chirurgie*, No. 17, 1883). In the first case, a man who had been syphilitic for many years was admitted for gummy inflammation of the nose and throat. During his stay in hospital he caught erysipelas, which affected the face, forehead, scalp, and neck. On the disappearance of the erysipelas, the syphilitic affection of the nose had quite disappeared. The second case was one of seriginous syphilide of the face and chest, and gummata of the scrotum. The syphilide, which was in the neighbourhood of the parts attacked by the erysipelas, was found to have healed by the time the latter affection had disappeared, but the gummata of the scrotum remained as before. The author also mentions a case of recent syphilis complicated with variola, in which a severe pustular syphilide developed on the earlier variolous spots during the crustation stage of the small-pox.

1255. *Scheube on the History of Syphilis.*—To Virchow's *Archiv*, Heft 3, 1883, Dr. Scheube of Leipzig contributes a paper on this subject, contain-

ing passages translated into German by Dr. Kayama of Kioto, from a Japanese work of the ninth century, with the object of showing that syphilis existed in Japan at that time. The work in question is entitled *Dai-do-rui-shiū-ho* (a classified collection of formulæ of the period Dai-do). This period of Dai-do includes the years 806-10, and the work originated in an account of the native medical knowledge of that day, written by the two physicians of the Emperor Heizei-Tenno, by order of the latter. The work, which is supposed to date from about the year 808, is clearly of Japanese and not of Chinese origin; for though Chinese characters are employed, it is written in Yamato-Kotoba—the ancient language of the Japanese people. As this language has long fallen into disuse, certain portions of the work could not be deciphered, while the meaning of some of the terms used is now unknown. Although written at the early period mentioned, the work was not printed until the early part of the present century. The book contains one hundred chapters. The first thirteen are occupied by a list of remedies for various ailments, while in the remainder a number of diseases are treated of, among them (in chapters 94 and 95) being the passages supposed to refer to syphilis. The first of these paragraphs describes a swelling in the groin on one side, eventually suppurating and discharging pus. In the second paragraph is described an eruption on the penis, beginning as a swelling of the size of a millet-seed, but becoming an ulcer after a few days. (Edema and swelling of the prepuce are next mentioned; and then spreading ulceration, leading finally to loss of the glans or even of the whole penis, and extending also to the testes. In the fifth paragraph is described—as a consequence of extension of the poison from the ulcer of the penis or groin—an eruption of the back and face, preceded by heat, chills, and pains in the bones, but unaccompanied by itching or pain. In the next passage, it is stated that after the healing of the genital sore the joints become painful, so that movement is prevented, with general feverishness. The poison then extends upwards, and the patient cannot eat. Constipation and difficulty in micturition are also mentioned. As the poison advances upwards, the throat becomes swollen and painful, and afterwards ulcerated. Putrefaction follows, and healing may not take place for years. The face or scalp and the bones of the head also suffer, as well as the ears or nose. The latter may even fall off, or blindness may occur, or the extremities may swell and eventually putrefy. The testes also become affected, and the whole surface of the body may be destroyed by deep ulcers. Then, from still further diffusion of the poison, occur noises in the ears and difficulty of hearing, and, some months later, pain and discharge from the ears, followed by total deafness. Dr. Scheube remarks that, though the foregoing description shows that the various symptoms mentioned were understood to be parts of the same specific disease, it is not clear whether it was looked on as being contagious or communicable by sexual intercourse. As regards treatment, numerous plants are named, but this portion of the work could not be satisfactorily translated. The use of mercury appears only to have been learned by the Japanese from Europeans at a much later period.

1256. *Sims on the Treatment of Syphilis*.—In this paper (*Brit. Med. Jour.*, March 10, 1883) Dr. Marion Sims records certain facts learned by

him from Dr. Rush Jones, of Montgomery, Alabama, touching a method of treating syphilis, formerly used with great success by the Creek nation of Indians. Seven or eight years before the civil war, Dr. G. W. McDade obtained the formula from a negro slave named Lawson, who had effected cures with it in cases which had resisted the usual remedies in the hands of Montgomery physicians. Dr. McDade, after eliminating various inert substances contained in the original decoction, adopted the following formula, which has been used by himself and his medical friends for many years. Fluid extract of *Smilax sarsaparilla*, fluid extract of *Stillingia sylvatica* (queen's delight), fluid extract of *Lappa minor* (burdock), fluid extract of *Phytolacca decandra* (poke root), of each 2 oz.; tincture of *Xanthoxylum carolinianum* (prickly ash), 1 oz. Take a teaspoonful in water three times a day before meals, and gradually increase to tablespoonful doses. The fluid extracts should be made from roots recently gathered. Dr. Jones has been treating syphilis for more than forty years, and says he has but little dread of undertaking the worst cases since he has adopted McDade's formula, and that mercury and iodide of potassium are unnecessary when it is used.

1258. *Lloyd on Gummata of the Tongue in Hereditary Syphilis*.—A girl, aged 18, came under treatment for soreness of the tongue, which had troubled her for two years. Her teeth were rather peggy and notched, and there were scars at both angles of the mouth. She had interstitial keratitis in both eyes. There was no history of acquired syphilis. One brother only was living, and he had bad eyes. About an inch from the tip of the tongue was an ulcer surrounded by induration. At the middle of the left half was a cavity filled by a gumma of the size of a horse-bean, and there was a third ulcer on the right side of the tongue. All began as nodules. Under iodide of potassium and iron, the ulcers healed in less than three months. The keratitis disappeared a few weeks later.

1259. *Whitney on the Existence of Syphilis in America before the discovery by Columbus*.—Dr. Whitney discusses this question in the *Boston Med. and Surg. Jour.*, April 19, 1883, and is of opinion that the evidence presented thus far does not prove the existence of syphilis in America previously to the landing of the Spaniards.

1260. *Curtis on Hot-water Retrojection in the Treatment of Gonorrhœa*.—Under this title Dr. H. H. Curtis recommends (*New York Med. Record*, April 21, 1883) irrigation of the urethra with large quantities of hot water, by means of a siphon apparatus or a Davidson's syringe. The water is placed in a tin pail with a spirit-lamp beneath it, and when the temperature of the water rises to about 120° F., a No. 8 English flexible catheter is introduced to within an inch of the prostate, and the flow of water continued through it until the heat becomes as great as the patient can bear, when the lamp is extinguished. Dr. Curtis states that he has repeatedly injected as much as ten quarts of water in this way, the injection being continued for some time after the point of toleration as regards heat has been reached. This point varies in different patients, but it is often as high as 180°-190° F. After the irrigation a syringeful of some injection (e.g. tannic acid, 40 grs., iodoform, 40 grs., glycerine, 1 oz., water, 3 oz.) is thrown in, and the catheter removed, the patient being told to return in 12 or 24 hours according to

the case. The author states that in twelve cases of undoubted gonorrhœa thus treated, the discharge was entirely checked in three days, and that in two cases the same result was gained by one injection of ten quarts. In six cases the disease lasted from 6 to 10 days. A case of gleet of nine months' standing was cured in seven days by dilatation and hot water injection. Cases in which strong mineral injections have been used do not respond nearly so quickly to the hot-water treatment as others.

ARTHUR COOPER.

OPHTHALMOLOGY.

RECENT PAPERS.

1262. ALCON.—On Jequirity or Abro del Rosario in Granular Ophthalmia. (*El Genio Med.-Quir.*, March 7, 1883.)

1263. ARNOUX, G. B.—On the Cure of Palpebral Granulations by the Application of Sulphate of Copper and Metallic Zinc. (*Lo Sperimentale*, May 1883.)

1264. VOLTOLINI.—Electro-magnetism in Ophthalmology. (*Deutsche Med. Wochens.*, May 16.)

1265. BORYSIKIEWICZ.—Absence of Rods in the Retina. (*Wiener Med. Blätter*, April 5.)

1266. LEBER.—Cataract and other Affections of the Eye from Lightning-Stroke. (*Grafe's Archiv*, Band xxviii.)

1267. COOMES.—Amblyopia from Menstrual Disturbances. (*Med. Herald*.)

1268. GALEZOWSKI.—The Treatment of Syphilitic Atrophy of the Retina by Subcutaneous Injection of Cyanide of Mercury.

ART. 1262. *Alcon on Jequirity or Abro del Rosario in Granular Ophthalmia.*—Dr. Alcon (*El Genio Medico-Quir.*, March 7) tried jequirity in thirty-nine cases, thirty-one complicated with pannus; nineteen were cured and nine much improved. The effect of the treatment was slow, the repair of the cornea taking from forty to sixty days after the disappearance of the granulation. The action can be limited at will, it being sufficient to wash the eye with water. It must not be used in old cases or after treatment by caustics, where old cicatrices exist which cannot be modified by treatment.

1263. *Arnoux on the Cure of Palpebral Granulations by the Application of Copper and Metallic Zinc.*—The author, from a varied and extensive experience, finds that the application of sulphate of copper gives better results than any other remedy. The pain caused by its application is a drawback to its use. When nitrate of silver is used, the excess of silver is commonly decomposed by the application of a solution of sodium chloride. In searching for some agent which should in similar manner decompose the excess of the copper salt, the author thought of the reduction which takes place when zinc is immersed in a solution of copper sulphate. After applying the solid copper sulphate, he touched the lid with a cylinder of metallic zinc; he found that this immediately removed the pain and had a marked beneficial effect on the granulations, far superior, indeed, to any other mode of treatment. The following is the mode of application. The patient's head being steadied, the eyelid is everted, and the palpebral conjunctiva dried with a bit of blotting-paper; the granulations are then to be

lightly touched with a crystal of sulphate of copper, and then, without losing time, with a little cylinder of metallic zinc; the conjunctiva is then to be wiped gently to free it from the black powder of reduced copper which is deposited, the lid returned to the normal position, but held away from the eye for half a minute, the patient being directed to stare right in front. An electrical current is set up, appreciable by the galvanometer; at the same time a molecular change takes place, sulphate of zinc in the nascent form appears, and the copper is precipitated as an impalpable black powder. At the point of application there are increased secretion, slight pallor, concentric reduction of the granulations, especially if they be acuminate. The patient, who complains of pain and burning on the application of the copper, experiences relief directly the zinc touches the conjunctiva. The good effect of this treatment must be owing to this combined action, since it is much more marked than when electricity alone is used (as by Tarchini), or with sulphate of copper or sulphate of zinc simply. Its rationale is probably somewhat as follows. The sulphate of copper sets up a special irritation which increases the secretion, and by its slight caustic action determines constriction of the vessels; when the zinc is applied, a molecular change takes place with development of localised currents, which stimulate the sluggish and over-distended granulations, and hence tend to reduce their volume; there is, moreover, cessation of pain and formation of sulphate of zinc in the nascent state, which helps to further constrict the epithelial elements. The effects of this treatment are more prompt and conspicuous than those obtained by any other. It is so little painful that after the first application children submit to it readily, and of this itself is no small advantage.

G. D'ARCY ADAMS, M.D.

1264. *Voltolini on Electro-Magnetism in Ophthalmology.*—Professor Voltolini, of Breslau, points out (*Deutsche Med. Wochens.*, May 16) the importance of using a specially strong battery in removing metallic splinters from the eye with the electro-magnet, especially when those splinters are very small, as then they do not present so much bulk to be attracted. He has devised an electro-magnet of the same form, size, and weight as Hirschberg's, but four times as strong, which he has used very successfully in experiments on eyes of dead animals. When the position of the splinter has been ascertained by the help of the magnet, and an incision has been made in a suitable situation, its removal may often be effected without introducing the magnetic sound into the eye, but by simply placing a large magnetic surface near the incision. It will greatly facilitate the operation to render the piece of metal in the eye magnetic before attempting its removal; and this may be done either by surrounding the patient's head by a copper spiral through which the current shall pass, or, more simply, by laying a very powerful electro-magnet, capable of lifting 20 lbs., against the closed eye for a few minutes. The most important necessities are a sufficiently strong battery and a variety of differently shaped sounds, so that the one which will present the largest magnetic surface may always be employed.

1265. *Borysikiewicz on the Absence of Rods in the Retina.*—In the Royal and Imperial Society of Physicians in Vienna, on March 30 (*Wiener Med. Blätter*, April 5), Professor Stricker communicated, on behalf of Dr. Borysikiewicz, a discovery which

the latter has made with regard to the rods in the retina. The eyes of a tigress which died in the menagerie at Schönbrunn, and which he carefully examined in numerous sections in all directions, showed no layer of rods in the retina, although the animal's sight was known to be very good. A leopard which died in the Kleeberg menagerie had also no layer of rods, although a lion which died lately had them particularly well-marked. The lion was an American, while the other animals belonged to the old world; but the fact of the rods being wanting is of much interest, since the power of sight has for forty years been supposed to depend on the layer of rods and cones.

ALICE KER, M.D.

1266. *Leber on Cataract and other Affections of the Eye from Lightning-Stroke.*—Dr. Th. Leber (*Gräfe's Archiv.*, Band xxviii., and *Centralbl. für die Med. Wiss.*, May 5) relates the case of a man, aged 31, who suffered double cataract following a lightning-stroke, more marked on the left side, on which side the flash more directly impinged. On the same side there were partial atrophy of the optic nerve, mydriasis, and impaired power of accommodation. The essential nature of these disturbances is not mechanical, but physico-chemical. The influence of electricity upon the lens can only be of this nature: the flash at the moment raises the temperature, so that coagulation of the albuminous substance of the lens is caused, whereby turbidity and impairment of its vitality result. The effect is sometimes more, sometimes less, extensive, sometimes only partially or laterally affecting the lens. The influence, however, of the electricity is not limited to the lens, but extends to other structures of the eye. The extent of disturbance of function depends upon the proportion of albumen in the structures. Thus, in the aqueous and vitreous humours, albumen being at a minimum, these parts suffer less from turbidity. The vascularity of the organ also greatly influences the effects of the lightning flash. A vascular structure will resist the effect, whilst a non-vascular body, as the lens, may suffer fatal injury. The nervous structures will be more or less paralysed by extreme excitement. In more severe cases those tissues will undergo the same kind of change as observed in the lens, affording an interesting explanation of the nervous affection.

W. B. KESTEVEN, M.D.

1267. *Coomes on Amblyopia from Menstrual Disturbances.*—Dr. Coomes, of Louisville, describes (*Med. Herald*) cases in which amblyopia is dependent on disturbances in the menstrual functions. Unfortunately, the symptoms which he describes are so little uniform as to be valueless in giving a precise character to the disease. Among the most common troubles thus produced, are muscular asthenopia and intermittent blindness. Pain, either smarting in company with conjunctivitis or more deeply seated, may also exist with or without photophobia. He describes in one case ophthalmoscopic appearances much like those of an ordinary mild optic neuritis. Suppression of the menses appears to be the most constant and prominent objective symptom of the uterine or ovarian disease.

1268. *Galezowski on the Treatment of Syphilitic Atrophy of the Optic Disc.*—Galezowski (*Communication to the Société de Biologie*, April 1883) has frequently cured syphilitic atrophy of the optic disc by the subcutaneous injection of cyanide of mercury. He dissolves 5 milligrammes of this salt in 1 gramme of water. The injections are to be repeated daily;

but if more than 1 centigramme of the salt be used for a dose, there is great risk of an uncontrollable diarrhoea. He has found the double cyanide of gold and potassium, also that of silver and potassium, produce very decided benefit in the optic atrophy of locomotor ataxia.

W. A. BRAILEY, M.D.

REVIEWS.

ARTICLE 1269.

Enteric Fever: its Prevalence and Modifications, Etiology, Pathology, and Treatment, as illustrated by Army Data at Home and Abroad. By FRANCIS H. WELCH, F.R.C.S., Surgeon-Major, A.M.D. (Alexander Prize Essay, December 1881—modified.) London: H. K. Lewis. 1883.

It has been well said that the army affords singularly favourable opportunities for the study of epidemic diseases and of the circumstances attending their development. The truth of this remark finds full confirmation in the work before us, in which Surgeon-Major Welch has collected the army data relating to enteric fever with a view to show how far they support the current doctrines regarding that fever. It is a work of the highest value, and one of the most important contributions to the etiology of this fever that has appeared in recent years.

As the title indicates, the work deals with the disease under the heads of 'Prevalence and Modifications, Etiology, Pathology, and Treatment.' The main subject of the book, however, is the question of etiology, and the other subjects are considered in great measure in relation to that question.

The prevalence of the disease in the army is shown by means of statistical tables giving the numbers of cases and of deaths—both the absolute numbers and the numbers in proportion to average strength—that have occurred in the home stations and the different stations abroad during the period from 1860 to 1878. These broad statistics indicate that, while there is no direct relation between the prevalence of the fever on the one hand, and regional and climatic conditions on the other, there 'have been conditions in operation in many tropical climates which have indirectly assisted it.'

In describing the modifications of the fever met with in the army, the chief point of interest to which the author refers is the question of range of pyrexia. In the army cases the temperature curve but rarely approximates to the so-called typical curve of Wunderlich; and Mr. Welch indicates his unbelief in the possibility of laying down precise rules for diagnosis by means of the temperature, as some authors have attempted to do. The author's remarks on this question apply equally to enteric fever as it occurs in civil life in this country. From our own experience, we should say that Wunderlich's ingenious scheme can be considered a type only of a very roughly approximate character. The prominence which is too often given to it in text-books has done harm, we fear, by setting up an unreliable standard of diagnosis. We freely admit that the temperature is a guide of considerable value in diagnosis, especially if it be not interpreted in too rigid accordance with Wunderlich's scheme; but we are of opinion that its value in this respect has been very greatly exaggerated.

Closely connected with the question of temperature is that of the so-called 'typho-malarial' type of

enteric fever. The term was introduced by Dr. Woodward during the American civil war to designate cases in which the attack was of a mixed character from the simultaneous entrance into the system of the two poisons. But this is not the meaning attached to it by such army medical officers as use it; nor is it used—at any rate in many cases—to refer to the attack of enteric fever in a subject already suffering from malarial poisoning; ‘the deduction (of the hybrid character of the disease) is apparently made from the tendency of the pyrexia to diverge from the type chart, and to assume a supposed remittent character, and the occurrence of anomalous perspirations.’ But the temperature, as the author points out, deviates largely from the so-called ‘type chart’ in cases where there cannot be the smallest suspicion of malaria, and anomalous perspirations may also occur in such cases. The deduction implied by the name is wholly unwarranted, and the term itself should be expunged from the list of army diseases.

The etiology of the fever is, as we have indicated, the subject chiefly discussed by the author, more than half the work being specifically devoted to it. The author describes each station separately, detailing the various circumstances which tend to modify the prevalence of enteric fever—the climate and regional peculiarities of the station, its internal sanitary conditions, and its relations to the surrounding population. The history of the prevalence of the fever in each station is then detailed, and finally deductions are drawn from the facts thus described.

These deductions are of the first importance in relation to the etiology of the fever and we shall close this notice by giving them in brief abstract form. This will more clearly indicate the character and scope of Surgeon-Major Welch’s admirable treatise than we should be able to do by any further description. The deductions, then, which the author draws from his survey of the history of enteric fever in the various army stations are as follows.

1. The disease has a wide range and marked individuality.

2. Stations in the same region or country, whether similar or dissimilar, and even the same stations in different years, show a marked diversity in the prevalence of the fever.

3. No known natural condition (season, climate, &c.), will explain enteric fever in the service.

4. The fever is no necessary outcome of arrival in a tropical climate.

5. The fever has been limited in its scope.

6. The disease-conditions were more restricted than the common conditions of station or corps.

7. There is no relation between the prevalence of the fever and any special work of the soldier or of any particular branch.

8. Its presence at foreign stations cannot be explained by recent introduction.

9. It has a high proportionate mortality.

10. Age is the most potent modifier of susceptibility.

11. The relation to season is of subordinate importance.

12. In all countries the military disease appears both in sporadic cases, and in localised outbreaks.

Finally, the author concludes that ‘the specific theory more closely embraces the military data than any other, and is the only one which meets the requirements of the case.’

D. MANSON FRASER, M.D.

ARTICLE 1270.

The Pathology of Bronchitis, Catarrhal Pneumonia, Tubercle, and Allied Lesions of the Human Lung.
By D. J. HAMILTON, M.B., F.R.C.S.E., F.R.S.E.,
Professor of Pathological Anatomy (Sir Erasmus Wilson Chair), University of Aberdeen.

It seldom falls to our lot to review a book containing so much careful and original work as Dr. Hamilton’s, nor one including so many excellent illustrations. These latter, apart from the text, will be invaluable to the student of normal and morbid anatomy of the lungs, and will doubtless be largely used. Much of the book appeared in the form of papers in the *Practitioner*; but there are many subsequent additions, and the whole work is replete with interest. As in many treatises of this kind, the author’s deductions are not equal in value to his original observations; for instance, his views on bronchiectasis, in which he assigns everything to the traction, on the dilated and atonic bronchial tube, of certain fixed points, including the adherent pleura, and no part at all to the pressure of inspiration on the interior of the bronchus. Part I. treats of bronchitis acute and chronic, and commences with an able and complete account of the normal structure of the bronchi, in which great stress is laid on the following points as explanatory of the leading phenomena of bronchitis: 1. The existence of three layers of epithelium—first, a layer of flat cells continuous with that lining the alveoli; secondly, Debove’s germinal layer, consisting of fusiform or battle-dore-shaped cells; and lastly, the ciliated columnar epithelium, these last cells being attached by their pointed extremities to the germinal layer: 2. The presence of a firm elastic basement-membrane, for the most part impermeable to the passage of cells: 3. The close connection between the inner layer of the pleura and the outer fibrous coat of the bronchi, through the interlobular septa, in which run the lymphatic spaces, the importance of which is seen in their being the channels by which carbon and other particles enter the lungs. It would appear that to the presence of the impermeable basement-membrane is due the infiltration of the various coats of the bronchi with the products of inflammation: for, owing to these not being able to escape, they infiltrate the various tissues with serum and cells, not only permeating them, but giving rise to local inflammatory changes, especially affecting the lymphatics (peribronchial and peri-arterial). Hence arise thickening of the tubes and loss of their elasticity.

In acute bronchitis, according to Dr. Hamilton, who has traced the successive pathological changes most minutely, the first deviation from the normal is a relaxation and distension of the abundant plexus of blood-vessels of the inner fibrous coat; the basement-membrane then becomes more distinct from being cedematous; next ensue changes in the epithelium; the columnar cells, overlying the foci of the greatest congestion, are shed, and the flat layer rapidly multiplies, forming epithelium of the embryonic kind; but our author does not hold with Kündfleisch that catarrhal cells are proliferations of connective-tissue corpuscles. The vessels of the mucous membrane now become more dilated and congested, and the inner coat infiltrated with cellular structures, some of which are leucocytes. The flat cells of this coat also multiply. Changes also take place in the mucous and lymphatic glands; the former showing epithelial proliferation; the latter, lymph-paths

choked with catarrhal cells and lymph-corpuscles. The blood-vessels of the bronchial glands are also congested.

The changes in chronic bronchitis are structurally greater than in acute. The whole bronchial wall is thickened with cellular infiltration, the mucous membrane is thrown into folds, the columnar cells disappear, and bud-like processes appear on the basement-membrane, consisting of aggregations of rounded cells, produced in some parts of the epithelial layer and not in others. The muscular coat nearly entirely vanishes, and the cartilages, to a very large extent, become atrophied through the pressure of the dense cellular infiltration; the mucous glands disappear, often forming abscesses, or being simply obliterated by pressure. We cannot be surprised that bronchi in this condition yield to atmospheric pressure and to the generally increased respiratory efforts, and dilate in certain parts; the bronchiectases, as they are termed, becoming full of expectoration, which accumulates, ferments, and decomposes, and either sets up further inflammatory processes in the bronchial wall, leading to ulceration, or, being reinhaled, causes septic poisoning of the adjoining alveoli, or of the opposite lung.

The bronchitis accompanying brown induration of the lung, consequent on regurgitant mitral disease, presents folds of the mucous membrane, which, under closer examination, proved to be formed mainly by enormously dilated blood-vessels. The connection between interstitial pneumonia and chronic bronchitis is well traced, and the part played in the former by the excessive growth of interlobular tissue well brought out.

In the second part, Dr. Hamilton describes catarrhal pneumonia and tubercle of the lung, but he appears to considerably widen the limits of the former at the expense of the latter. He describes and figures the stages of catarrhal pneumonia, the epithelial proliferation, the distension of the alveoli, the obliteration of the blood-vessels, and the resulting caseation, and excavation, without admitting the existence of tubercle in the lung; and when it does appear, he holds it to be the result of infection from a caseous mass either in the same organ or in some distant one. When tubercle arises in the former way, Dr. Hamilton calls it secondary; if in the latter way, primary; and the reason of such distinction does not seem obvious, as from our author's standpoint all tubercle must be secondary. The distribution of the two kinds is, however, very different. Primary tubercle is scattered through the lungs generally; secondary tubercle follows the course of the lymphatics contained in the peri-arterial and peribronchial sheaths, the interlobular septa, and the deep layer of the pleura. In primary tubercle the blood-vessels are the means of disseminating the caseous virus, and many organs are simultaneously attacked. In secondary tubercle, the lymphatic glands and vessels seem the sources of infection, the tubercle taking the same path as inhaled pigment-particles. Both forms have exactly the same structure, the giant-cell being the characteristic feature, and most tubercles being made up of one or more systems of these multinucleated cells. As might be expected, Dr. Hamilton discusses the relation of the bacillus tuberculosis to phthisis, and arrives at the conclusion that it is probably the active agent in that process of caseous fermentation which leads to the eruption of miliary tubercle; but that the formation of caseous masses

is generally due to deficient blood-supply, and can take place without the presence of the bacillus, which is only the means of spreading tuberculosis.

There are many other topics in the book well worthy of notice; but we must now draw this review to a close by expressing regret that the author, while putting forward his own views so well and clearly, has not taken the trouble to notice the work of the many and distinguished fellow-labourers in the same field, this being specially the case with regard to the English workers; and we trust in a subsequent edition to see this omission corrected. We hope that Dr. Hamilton will not limit his excellent powers to pulmonary pathology, but investigate other forms of disease.

C. THEODORE WILLIAMS, M.D.

ARTICLE 1271.

Traité Complet d'Ophthalmologie. Par DE WEAVER ET LANDOLT. Tome iii., premier fascicule. Refraction et Accommodation. Par E. LANDOLT. Pp. 324. Paris: Adrien de la Haye. 1883.

THE present work forms the first portion of the third volume of the systematic and exhaustive treatise on ophthalmology of Drs. De Wecker and Landolt. Those of our readers who already possess the first volumes of this excellent work will welcome the appearance—too long delayed—of the present instalment. It may at once be said that it is in every respect equal to its predecessors. It is lucid in style and arrangement, copious in its subject-matter, strictly scientific in tone, and agreeably free from the ponderous crudition which has made some recent works on refraction and accommodation anything but easy reading.

At the outset of his task, Dr. Landolt found himself confronted with a practical difficulty which other authors have also experienced. Ocular refraction is in its essence a sub-chapter in optics; and to treat of optics without calling in the aid of the higher mathematics is scarcely possible. Dr. Landolt has, however, met this difficulty in an ingenious and satisfactory manner. He has devoted the first hundred pages of his work to the consideration of the purely optical portion of his subject. He there enters exhaustively, and with commendable clearness, into the various phenomena connected with the transmission of light through refractive media. He describes with sufficient fulness the properties and varieties of lenses, and the laws of refraction from plane and spherical surfaces, and then applies these laws to elucidate the form, size, and position of retinal images. In this portion of the work, no preliminary knowledge of mathematical science on the part of the reader is taken for granted. Each deduction follows as a matter of course from what has gone before. The author postulates a simple luminous point, emitting rays in all directions, and these rays he follows in turn through plane and spherical media, until finally the reader can trace them intelligently through the complicated dioptric system of the eye. For those, however, who are able or willing to appreciate mathematical formulae, a separate chapter of demonstrations has been added. These are, however, distinctly separate from the main body of the work. They are intended solely for those who desire a full and thorough explanation of the optical laws of vision, in their application both to emmetropia and to ametropia.

The second portion of the work deals exclusively with the organ of vision, in repose and during the act of accommodation. It treats of the various anomalies of refraction and accommodation, and gives practical methods of estimating the static refraction of the eye. Regular and irregular astigmatism are treated of separately. In this portion of Dr. Landolt's work, no reference is made to the clinical application of the doctrines enunciated. This is reserved for a second part, still unpublished, which will include the pathology and treatment of errors of refraction and accommodation.

Although a considerable amount of the contents of Dr. Landolt's work is already the common property of oculists and physiologists, still the author has been enabled either to add some new teachings, or to put old ones in a newer and better light. While, of course, ample reference has been made to the classical labours of Donders, as the basis of this text-book, the works of other men in the same field have not been overlooked. Ample justice has been rendered to the honest and able work done by Mauthner, Knapp, Hirschberg, Monoyer, Javal, Gauss, Moebius, and a host of other careful observers. It is evident that in the performance of his task Dr. Landolt has left no source of knowledge untapped. The pages of all the leading ophthalmic reviews of past years have been placed under contribution. The work, therefore, is written up to date, and contains all that is newest and best known in the subsection of ophthalmology of which it treats. Among many interesting subjects special attention may be called to the chapter on pupilloscopy (originally called keratotomy, and subsequently retinoscopy), on the estimation of astigmatism by the ophthalmoscope, on the method of ophthalmoscopy devised by Loiseau and Warlomont, and on the ingenious and useful ophthalmodynamometer of the author himself, for the determination of the amplitude of convergence.

It would be easy, if space permitted, to give copious extracts showing what, in our opinion, constitutes one of the chief merits of this work—namely, its remarkable perspicacity and clearness. It may be safely said that there is not an unintelligible or obscure sentence in the whole book. The author, as he states in his preface, has aimed at writing a manual on the subject of refraction and accommodation, which should be at once simple, clear, and comprehensive. In this task he has certainly succeeded admirably. There are probably few specialists who may not learn something from his pages, while for beginners and students all the knowledge they can possibly require is given succinctly and fully. The immense difficulty of writing clearly and intelligibly for beginners, while at the same time considering the interests of more advanced students, is only known to those who have experienced it. Dr. Landolt, however, possesses the happy knack, the offspring of a thorough knowledge of his subject, of being full without prolixity, and scientific without obscurity. The leading features of the work are, as already stated, its clearness and scientific tone, and the method by which it applies scientific teaching to practice. The separation of pure mathematics and their relegation to a distinct chapter was also a happy idea. In this way the author has succeeded in rendering the whole subject of refraction and accommodation, hitherto the dread of all students and of many practitioners, at once simple, clear, and easily intelligible.

A few words should also be said about the excellent manner in which the publishers have performed their part of the work. The printing and paper are good, and there is an almost remarkable absence of those absurd blunders in proper names for which most English readers are accustomed to look in French publications. The engravings are numerous and good. They are carefully executed to elucidate the text, and are in white on a black ground. On the whole it may be said that both for subject-matter and for typographical excellence Dr. Landolt's work is the best and most complete which has appeared on its own special subject since the great work of Donders. LITTON FORBES.

ARTICLE 1272.

NOTES ON BOOKS RELATING TO CLIMATIC RESORTS.

1. *Southern and Swiss Health-Resorts, &c.* By W. MARCET, M.D. Crown 8vo. pp. 400. London: J. & A. Churchill. 1883.
2. *Nice and its Climate.* By Dr. A. BARÉTY. Translated by Dr. C. West. 12mo. pp. 160. London: E. Stanford.
3. *Bordighera: Manuel a l'usage de la Colonie Etrangere.* 8vo. pp. 284. Par F. F. HAMILTON. Bordighera: chez l'auteur. 1883.
4. *L'Inverno a Catania.* By Dr. G. B. UGHETTI. 12mo. pp. 51. Catania. 1882.
5. *Hammam Rihra, Algiers.* By G. H. BRANDT, M.D. 12mo. pp. 44. London: H. K. Lewis. 1883.
6. *Die Haupt-Stollen Quelle in Baden-Baden Analyse.* Von Dr. BUNSEN. 1881.

1. THE number of works on climatic health-resorts is growing so large, that it is somewhat confusing. The climate of the Riviera, in particular, has been treated of in numberless monographs on individual stations, and in works of a more general character. Of the latter class, among English books, the excellent volumes of Dr. Henry Bennet and of the late Dr. Sparkes, are the most satisfactory.

Dr. Marcet, who has had many years' experience of the Riviera, and who has specially studied its meteorology, has added himself to the list of more general writers. For not only does he discuss the climate and the health-resorts of the Riviera (not, by the way, mentioning the new stations of St. Raphael, or of Monaco, or Alassio), but he notices Egypt at some length—Pau and Algiers more briefly, and then makes a long excursion to the islands of Madeira and of Teneriffe. Thence he returns to Europe, and to Swiss health-resorts, and especially describes the effects of Davos and of residence in mountain-climates. As he has studied this subject particularly, we give his general results in his own words.

Elevation facilitates the passage of the oxygen of the air through the lungs into the blood, and the exit of the carbonic acid from the blood into the external air. I believe that this explains in a very great measure, the power these stations possess of checking the progress of phthisis. It is indeed obvious that, where the pulmonary tissue is damaged, the more ready passage of the oxygen through it, and the more ready exit of carbonic acid in the light air of the highest stations, will exert a strong

tendency towards restoring the healthy nutrition of that tissue.'

The book, as is apparent from the above enumeration of its contents, is not very methodical in its arrangement, and is somewhat discursive; but it furnishes the results of experience, and the reader may obtain from its perusal much valuable information about places and their suitability for various conditions of ill-health. The author's general observations on the operation of different elevations on the constitution are well worthy of consideration, whether his theoretical views be accepted or not.

2. This is another, and an excellent monograph on Nice, by Dr. Barcty, and is enriched with the notes of Dr. West. It is full of information that will be useful to the visitors of that pleasant city, of which it is rather the fashion to abuse the climate, as if no portion of it were sheltered. Whatever may be the demerits of Nice, at all events one does not meet with *poitrinaires* at every turn, as is the case at most of the neighbouring stations.

3. Mr. Hamilton is not a medical man, but he gives a full account of the sanitary condition and of the climatology of Bordighera, one of the smaller stations of the Riviera, which is gradually rising in favour with the public. He also supplies much information on the local history, dialect, geology, fauna, and botany of West Liguria, which ought to be interesting and instructive to those who pay more than a passing visit to this town of palms.

4. There is no question as to the excellence of the climate of Catania, which is thus described by Dr. Ughetti.

'During winter it has a very mild temperature (Mentone, 53°8'; Palermo, 55°; Catania, 55°4'; Malaga, 57°5') the thermometer having fallen only once in eleven years almost to zero. The barometric pressure does not vary much; the amount of humidity is a medium one: the number of windy days is not so numerous as that of many popular stations, and probably the number of fine days is not exceeded anywhere.'

Notwithstanding its climate and its possessing good accommodation, Catania is rather a dull place to reside in, and there is a great want of shade. The same remark applies to the not distant Aci Reale, with its excellent mineral waters.

5. The full title of Dr. Brandt's essay indicates the claims set forth for Hammam Rihra.

It is recommended 'as a winter health-resort and mineral water cure combined.'

There are not wanting grounds for these pretensions, for there are not a great many places in Europe, where a bathing cure can be conducted in a good winter climate. Perhaps the best of such places are Dax, Amlie les Bains, and Aci Reale, which has just been mentioned.

Hammam Rihra has a pleasant chalybeate for drinking, as well as its thermal waters, the natural temperature of which is 113°.

Mr. Pollock and Dr. Brunton have both visited these baths, and their favourable reports of them have been confirmed by many friends who have visited Algiers, and are anxious that these waters should be more resorted to. The excellence of the new arrangements and the presence of an English doctor will accelerate this desirable event.

There is no doubt as to the value of the waters in rheumatism; but if there be any sceptics, they will doubtless be convinced, when they learn that a venerable member of the canine fraternity, who suffers

from chronic rheumatism, resorts daily to the waters, and enjoys an immersion for an hour or two.

6. In these days not only the public, but, we fear, a good many of the profession also, are apt to be attracted by the minute portions of certain substances whose existence in particular waters is rather loudly proclaimed. We think that extravagant importance is attached to the presence of such substances. Nevertheless, it may be well to remind our readers, of the remarkable discovery made in the waters of Baden-Baden two years ago, of which much notice has not been taken. It was known previously, that one or two of its wells contained a considerable amount of chloride of lithium—45 milligrammes in the litre—but no arsenic had been detected. Bunsen, who had examined these waters in 1871, analysed them again in 1881, after the arrangements connected with the new magnificent establishment had been completed. The result was, that he discovered an increase of lithium—from 45 to 54·3 milligrammes—and found, also, that a salt of arsenic was present in a very unusual amount.

The presence of 20 milligrammes of lithium in the waters of Assmannshausen has been enough to give that new bath a reputation in gout, and the presence of 35 milligrammes in the waters of Royat, is one of the recommendations of their use in the arthritic affections which, according to present medical opinion, pervade the whole mass of English, male and female.

Bourboule, although possessing richly mineralised waters, which can stand on their own ground, even without their arsenic, owes much of its success to the reputation of the arsenic which it contains. French and German balneologists, unfortunately, are by no means well acquainted with each other's labours, and thus it comes to pass that Bourboule, not without some cause, is regarded as standing alone among mineral waters in its amount of arsenic; while Dr. Brandt, in the second edition of his useful guide to Royat, goes the length of saying, 'Comparing the quantity of lithium contained in the Auvergne springs, and that of other regions in France and Germany, we find that those of Royat stand at the head of the list.'

The facts, according to chemists, are these.

Bourboule contains ·287 milligrammes of arsenite of soda, Baden-Baden ·264.

Royat	contains	35	mgs. of chloride of lithium.
Durkheim	"	39	" "
Baden-Baden	"	54·3	" "
Elster	"	108·2	" "
Salzschlirf	"	218	" "

The last spring, therefore, contains about six times as much lithium as Royat does. And it is a remarkable fact, that the waters of Baden-Baden at once contain almost as much arsenic as those of Bourboule, and at least one half more of lithium than those of Royat.

It is unnecessary to enter here on a consideration of the therapeutic value of the small quantities of lithium and of arsenic, which are found associated with large quantities of other salts in some mineral waters. But how comes it that the constitutional effects of arsenic, which are so apparent to French medical men at La Bourboule, and even at the weaker Mont Dore, have never been observed by their German brethren at Baden-Baden, with its large amount of arsenic?

J. MACPHERSON, M.D.

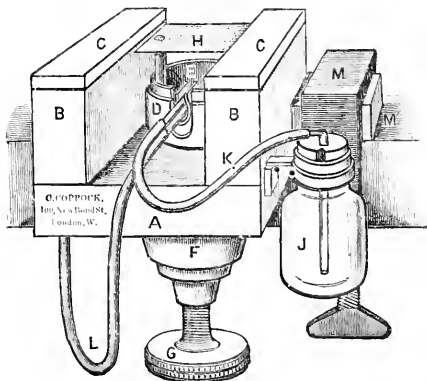
NEW INVENTIONS.

ARTICLE 1273.

CATHCART'S NEW FORM OF ETHER-MICROTOME.

MR. CHARLES W. CATHCART, Lecturer on Anatomy in Surgeons' Hall, Edinburgh, writes as follows in reference to this apparatus (*Journal of Anatomy and Physiology*, Vol. xviii.). In venturing to add another to the many forms of Freezing Microtome which have been produced of late, I may begin by explaining what objects I had in view in devising the present apparatus, as a preliminary to describing its mechanism. These objects briefly, were—(1) to obtain a simple ether-spray producer which would not allow any ether to escape unevaporated; (2) to have an efficient microtome for use with the ether-spray, which would be so simple in its mechanism as to admit of manufacture and production at a comparatively low cost. After a considerable amount of time and trouble, I have succeeded in producing a microtome which can be sold at 17s. 6d., including the spray-producer, and which freezes $\frac{1}{2}$ of an inch of tissue in $1\frac{1}{2}$ or 2 minutes, using in the process about 2 drachms of ether, which cost something less than a farthing. The instrument may be described under the heads of the Spray and the Microtome.

The spray-producer works on the same principle as the scent-sprays which have been in use for a long time, where a jet of air playing across the top of a tube draws up the fluid from its interior by tending to make a vacuum in it. The bellows used are the ordinary hand ones sold for carbolic and other spray-producers, these being as cheap and efficient as any that can be got. In working at the spray-points, I began by selecting the size of the air-hole that these bellows could easily feed with a



continuous blast of air, and then, experimenting with various sizes of vaccine-tubes, I found at last that with the smallest size I could produce a spray which, at about half an inch's distance from any object, contained just as much ether as the given blast of air could evaporate. There was then of course no running of the ether to waste, while at the same time an intense cold was very rapidly produced. The method of adapting the spray-points

to one another is a modification of the ordinary one, and is adopted from a German model. It is as follows. Two fine brass tubes are taken; one is brought to the requisitely fine point for the ether, and the other, being closed at the end, has the air-hole bored at the side a little below the closure. The point of the ether-tube is then placed over the middle of the air-hole, and the tubes, laid one over the other, are soldered together in this position; the free ends of the tubes are then connected with the air-bellows and the ether-bottle respectively by means of India-rubber tubing, and this part of the apparatus is complete.

The microtome (see figure) consists of the framework, and the mechanism for raising the section. The framework is of half-inch mahogany, and is in the form of a base with two upright parallel pieces screwed on to it. The base, A, which is about $2\frac{1}{2}$ by 4 inches, is bored to allow the tubes for raising the section to pass up between the parallel pieces, and has a projecting part at one side to allow of its being clamped to the table (M'). The two parallel parts (BB), which are of the same half-inch mahogany, stand about $1\frac{1}{2}$ inches apart; they are 4 inches long, and, rising to 1 inch high, each carries on the upper surface a piece of $\frac{1}{4}$ -inch plate glass (CC) of the same length and breadth as itself. This is to support and steady the knife as it is pushed across the tissue to be cut; while the fact of the tissue coming up between the plates allows that part of the knife which is to cut the specimen to be kept free of contact until it touches the tissue.

The method of raising the section-plate is as follows. About 2 inches of accurately fitting double brass tubes are taken, and into the outer one (D) the nut (F) of a fine screw is firmly soldered at what is to be its lower end. The inner tube (E) has the section-plate fixed to its upper end by two screws, with, however, two small pieces of vulcanite intervening between the plate and the tube, so as to disconnect them as much as possible, and into the lower end of the inner tube a transverse bar is fitted, against which the screw coming through the outer tube presses when it is desired to raise the section-plate to which the inner tube is attached. By means of a small screw-nail fixing the outer screw to the bar in question, the inner tube can be withdrawn, as well as pushed up whenever that movement is required. A milled head (G) has been substituted for the ordinary capstan arms, for turning the main screw round.

The spray-points are introduced at the requisite distance below the section-plate by cutting a narrow slot through both tubes, and fixing to the inner one a piece of bent brass, into which the spray-points can be pushed and held firmly, while a small shoulder on the latter prevents them from passing beyond the centre of the under surface of the plate.

Finally, the ether-bottle (J) is fastened to the side of one of the upright pieces of the framework by a simple hook and eye, the hook being fixed to a collar round the neck of the ether bottle, and the eye to the side of the framework in question. It will be seen, I think, from this description, that with the exception of the fine screw for raising the tissue, the details of the mechanism are very simple, hence the low price at which it can be sold; and in practice it has been found to work admirably.

Directions for Use.—1. Place a few drops of muci-lage (one part of gum to three parts of water) on the zinc plate (H). 2. Take a piece of the tissue, to be

cut of about a quarter of an inch thickness, and press it into the gum. 3. Fill the ether-bottle (J) with anhydrous methylated ether, and push the spray-points into their socket (E). All spirit must, of course, have been previously removed by soaking the tissue for a night in water. It should afterwards be soaked in gum for a like time before being cut. 4. Work the spray-bellows briskly until the gum begins to freeze; after this, work more gently. Be always careful to brush off the frozen vapour which in a moist atmosphere may collect below the zinc plate. If the ether should tend to collect in drops below the plate, work the bellows more slowly. 5. Raise the tissue by turning the milled head (G), and cut by sliding the knife along the glass plates. 6. After use, be careful to wipe the whole instrument clean. 7. Should the ether-point become choked, clear by means of a piece of fine wire. 8. The instrument is intended for use with methylated sulphuric ether. 9. In clamping the instrument to a table, or other support, care should be taken that the zinc plate is in a horizontal position. If the plate be not horizontal, the gum will tend to run to one side. If, after the ether-point has been cleared by the fine wire, it should still fail to act properly, it had better be returned to the maker, Mr. Charles Coppock, 100 New Bond Street, W., for readjustment. For this purpose, the spray-points *only* need be sent. At a temperature of 50° F. the instrument, if in proper order, should freeze a quantity of gum, half an inch in diameter and about one quarter inch thick, in two minutes. The instrument will give the best results when worked in a *cold* and *dry* atmosphere.

ARTICLE 1274.

BIGELOW'S SIMPLIFIED EVACUATOR FOR LITHOLAPAXY.

DR. HENRY J. BIGELOW, Surgeon to the Massachusetts General Hospital, and Emeritus Professor of Surgery in Harvard University, thus describes this instrument.

The operation for the immediate removal of a calculus through a catheter, like many other surgical operations, can be accomplished more or less satisfactorily by any one of several instruments which more resemble each other. But it can be done better by employing a more perfect apparatus than those now generally in use. It has been said that 'no new form of instrument is required by this operation,' which is true so far as it implies that neither a lithotrite nor an evacuator is a new instrument. But it would be a mistake to infer that the operation could have been done with the instruments of the old lithotritry, and that they had needed no change to adapt them to what is now required of them, or that they cannot be still further modified to advantage. The new operation cannot be performed with the old instruments. It requires a larger evacuating catheter than that of Clover, through which the usual product of the lithotrite could not pass, except powder and sand, and that only in limited quantities, because the other detritus obstructed the entrance of the tube.* Though at

first received with a good deal of distrust, the large catheter has been finally adopted by all the surgeons who have done the operation, and, in fact, cannot be dispensed with. It should be combined with a thoroughly efficient aspirator. But no particular form of aspirator has so far met with general approval. Though better than it was, surgeons have none as yet which entirely satisfies all requirements of the operation and is at the same time compact, and convenient to handle, and simple in construction. This part of the evacuator still needs improvement.

The usual parts of an evacuator, not including the catheter, are these:—

1. The exhaust, the best form of which is an elastic bulb.
2. A space or trap for air, at the upper part of the instrument.
3. A glass receiver at the lower part, to collect and show the *débris*.

In drawing out fragments from the bladder through the large catheter, one bulb or aspirator, if strong enough, is about as efficient as another. An aspirator of almost any shape, and having almost any combination of its parts, will do this. So will a mere elastic bulb attached directly to the catheter, without joints or receiver, if it is placed lower than the catheter, bent down like the body of a retort, so that the fragments can fall to the bottom of it; and the instrument will still work well if it has joints made, for economy, of cork or rubber instead of metal. But, however otherwise arranged, a satisfactory aspirator should have:

4. Some device, near the catheter, to act as a trap for *débris* and secure every fragment that has passed it.

The chief difference among evacuators, now, is in the certainty with which they retain the fragments they have aspirated. Any instrument will draw out the fragments, but few hold them securely, for the *débris* do not always fall into the glass receiver, nor do they always remain in it. On the contrary, they are easily carried back to the bladder. This defect in the action of the evacuator has received little attention from surgeons, although it is the only point connected with the instrument which offers any difficulty whatever. Until recently it has been remedied only by sacrificing simplicity in the apparatus.

In endeavouring to make a satisfactory evacuator for litholapaxy, many experiments have to be tried. It is quite possible that a perfectly satisfactory instrument might have been contrived some time ago, if it had been generally understood that an evacuator that works best with pieces of broken coal in a vessel of water will succeed best with the fragments in the bladder.* So also will the surgeon if he is otherwise well qualified. It is true that the living tissues are

according to Otis, is, if we except the meatus, 32 of the French scale. Clover's evacuating catheter was 21. Those now in use range from 26 to 31. Care, however, and often special skill, may be required to introduce safely the largest sizes; 31 is very rarely needed, and the French sizes 28 and 29 are generally the most convenient. For a final washing or sounding without anesthesia, when it is desirable to give the patient the least discomfort, even so small a calibre as 26 is sometimes useful. Through a catheter of this calibre Mr. Teevan has removed calculi weighing six or eight hundred grains, but such cases should be regarded as showing what is possible, rather than as establishing a rule of practice. Here I may add that, although no lithotrite compares in size with the larger tubes, it is yet true that long-bladed lithotrites, especially if they have the sharp extremity of the old instruments, are more difficult than tubes to introduce with safety. Although since 1873 my lithotrites have been made in three sizes, I have rarely had occasion to employ any other than the middle size.

* The specific gravity of hard coal is 1.575. That of a urate calculus is 1.340, and of a mulberry calculus, 1.262.

* Sir Henry Thompson says ('Diseases of the Urinary Organs, Philadelphia and London, 1882'). 'The evacuating catheter to be attached to the aspirator should be as large as the urethra will admit; usually No. 15 or 16 of the English scale [20 or 23 French] may be used without any danger. Sometimes No. 17 or 18 [30 and 31 French] are admissible; but such sizes are quite unnecessary for small stones, and may produce mischief; hence they are only to be used where the presence of a large stone demands corresponding instruments.' Or, it might be added, to expedite the operation when the urethra is large and healthy. The size of the normal urethra,

easily injured, but in other respects the experiment can be made sufficiently like the operation to give it great value. Aspirating *débris* from the bladder is not a question of pathology, but of operative surgery—of physics. And in view of the fact that we fail, in some bladders, to discover a last fragment even by repeated washing, an evacuator should be so constructed that it will absolutely prevent a fragment that has once passed the catheter from returning to the bladder to become the nucleus of another calculus.

It is not altogether easy to meet this requirement, because the solid particles are usually borne back and forth with the current of water. In a common evacuator, they are carried wherever it goes, first from the bladder to the bulb, and then, when it is reversed, back to the bladder, a part only falling into the receiver at each aspiration. As we may fairly assume that a surgeon would not deliberately inject foreign bodies into a patient's bladder, there must be something wrong in a system which obliges him to do this, and makes it necessary to aspirate the same *débris* twenty times over in order to remove it. In short, the apparatus as commonly arranged is still a defective one, and needs some special contrivance to assist the action of gravity in securing the *débris*.

Surgeons have long felt this. The use of a long elastic tube connected with the catheter has been more than once criticised, and with some reason, on the ground that it might contain fragments which would be returned to the bladder; and, again, in order to shorten by an inch the route from the bladder, a less convenient stop-cock has been substituted for the usual one. But lithotritists should be fully aware of the fact that, whether there is an elastic tube or not, a tenfold greater quantity of fragments is generally driven back out of the bulb itself, and that the difficulty lies almost wholly in that part of the instrument. At each expansion *débris* are drawn from the bladder into the bulb, where they are delayed until when it is compressed they are injected back into the bladder. Only a part of them, sometimes only the larger half—the quantity varying in different instruments—settle into the glass receiver. This important fact, so little recognised, should not be accepted without demonstration.

An instrument which Sir Henry Thompson has lately abandoned can be made to demonstrate exactly how the currents act upon the fragments in an evacuator which is unprovided with a catheter-trap to prevent them from re-entering the catheter. It is here selected because the peculiar form of this instrument makes it easy to fit a glass tube to it, so that we can see what takes place in the interior. Let a piece of glass tube an inch in diameter be inserted at the joint between the bulb and the catheter, to show what passes with the current from one to the other in either direction. If the end of the catheter be now placed in a suitable vessel of water containing fragments of coal of different sizes, while the bulb is alternately compressed and allowed to dilate, a continued stream of fragments will be seen rising from the vessel into the bulb, and then returning to the vessel as they inevitably do to the bladder. The back-flow of *débris* can be still better watched if a glass tube be also substituted for the catheter.

But there is another important fact illustrated by this instrument. Fragments do not always stay in a

receiver after they have been deposited there. When the glass receiver R of this evacuator is half filled with fragments, a part of these are easily carried back into the bladder or into the vessel. They are first lifted up from the receiver into the bulb, and then driven out through the catheter. For though the orifice of this glass receiver is small and protected by a special trap, the current and *débris* pass out of it as well as into it. It could not have been foreseen that fragments would escape from a receptacle apparently so well arranged. But it will be found that in any instrument, if the bulb or catheter directs the current into the glass receiver, whether directly or obliquely, fragments are easily carried out again.

And the general result is little better if, to avoid stirring the fragments which lie in the receiver, the current is divided horizontally over the mouth of it instead of into it. Some of them then pass directly back and forth between the bladder and the bulb, over the receiver, without falling into it. This defect can be shown in an instrument recently employed by Sir Henry at the suggestion of Weiss & Co.,* where the stream from the catheter passes horizontally through an empty chamber on its way to the bulb. As the stream enters it, its velocity is so diminished that fragments fall to the bottom into the receiver, in greater number when the bulb is weak. Many fragments are as usual secured. But, in order to be wholly effectual, the chamber intended to retard and break up the current by its size would have to be inconveniently large, to give time to the floating *débris* entering on one side to settle into the receiver without passing farther. The principle here involved is quite different from that of the evacuator just described. This instrument is not unlike one formerly figured in the *Lancet*,† but the valve and strainer which there act as a trap have been omitted, and, in consequence, not a few fragments escape back to the bladder.

In Weiss's evacuator, again, some of the fragments which enter the bulb gather in the bottom of it, which is lower than its outlet, and where there is no receiver to collect them. The chief difficulty, however, is not that these fragments stray into the bulb, but that, for want of a trap, they are afterwards liable to escape out of it, to the bladder.

This difficulty is not wholly obviated by placing a strainer across the mouth of the bulb to prevent the fragments from entering it, as has been done in some other evacuators. Let me mention in this connection the results of a former experiment. It might be supposed that if the passing fragments were arrested by a flat strainer placed across the current, whether at the orifice of the bulb or elsewhere, they would fall into a glass receiver placed directly below them. But this is not the case. Though a large part fall into it, others collect upon the strainer, and, unless the operator pauses after each aspiration till they have settled quietly into the receiver, they are liable to be carried back by the current, unless it is a very weak one. This has happened, in my experience, whether the strainer was horizontal, vertical, or oblique. The fragments do not glance from it down into the receiver, but some of them cling to it until the current is reversed, and then go back. To make a strainer act as a trap, the fragments should pass freely beyond it and be intercepted only on their return. They will then be strained away from the bladder and not toward it.

* *Lancet*, Jan. 7, 1880.

† *Lancet*, Sept. 24, 1881, fig. 5.

It is very desirable that the current should be unobstructed while the bulb is expanding, whether by a strainer or by curves and angles in the tubes. A simple flat strainer, placed anywhere across the whole current, retards it, especially if the urine is flocculent.

I find that the simplest expedient for collecting the fragments so that they will settle undisturbed in a glass receiver is, to admit them into the bulb and prevent their escape from it. After many experiments, I have found nothing more effectual for this purpose than a straight cylinder with perforated walls, which is practically a prolongation of the catheter into the bulb. The water, after bringing the fragments from the bladder, is strained as it returns. To the open end of this perforated cylinder a valve might be attached; either a ball-valve moving loosely,* which is less liable to obstruction than a valve with a hinge, or, still better, at the same point half an inch of cotton tube, which opens, allowing the fragments to pass up through it, and collapses with the reversed current, cutting off their retreat, the water, as it returns, passing back through the perforated walls. In operating with this arrangement I have found it to work perfectly, but a valve is not necessary, and the apparatus is more simple without it.†

The evacuator described below is more simple in construction, and aspirates more perfectly than any I have used. It is shown in fig. 1, and is a compact modification of one formerly published in the *Lancet* ‡ as 'a simplified evacuator,' but without the stand of that instrument, which is not essential, and has been omitted because operators seem to prefer to do without it.

The catheter is made to enter a spherical bulb obliquely upward, and is prolonged to the centre of the cavity by the tube just referred to, open at its end, and perforated on its sides with numerous holes, which act as a strainer. This arrangement has the great advantage of *not deflecting the current* and thereby diminishing its force. During aspiration the current bearing the *débris* is drawn straight from the bladder through the tube into the widest part of the bulb, and the fragments, spreading there, fall toward the receiver. But, when the bulb is compressed, the water returns mostly through the perforations in the side of the tube because their area is collectively larger than the opening at the end of it, and because they are nearer the point at which the water passes out of the bulb. By means of this simple contrivance the water is strained, and the return of fragments is practically prevented. The tube-strainer can be removed, cleaned, and replaced in a moment, and this is an advantage when there is much mucus, coagulum, or shreddy material in the urine, by which the holes of any strainer may be partly obstructed. Even then this tube continues to work well, but it is better to pass a brush over it

if mucus adheres to it. It can be examined as often as the receiver is emptied. After the water has once been changed, less mucus will be found.

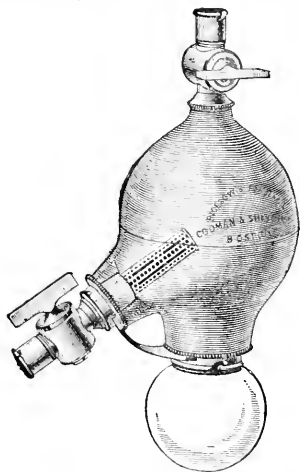


FIG. 1.

The writer's evacuator. It has an elastic bulb, glass receiver, and stop-locks. Below there is a metal brace between the collar of the glass receiver and that of the catheter to steady the latter. Within the bulb, and open at the end, is a tube-strainer to prevent the return of *débris*. The bulb forms a concentric handle to the catheter.

The action of the perforated tube meets all requirements. In fact, if the catheter is prolonged into the bulb by a tube which has no perforations in its sides, the instrument will perform very fairly. Such a tube might be fastened permanently in the bulb, but the apparatus can be kept cleaner if there is a joint through which it can be removed. The cavity of the bulb cannot be made too accessible.

This arrangement has several other advantages.

1. With the trap placed inside the bulb the instrument is more compact, shorter, and more easily held, and, as the spherical bulb is here placed in a straight line with the catheter, it forms a concentric handle, which enables the surgeon to direct the catheter better than when this handle is placed above it, at an angle with it.

2. The glass receiver is here attached immediately below the bulb, and is easily seen. A glass cylinder shows fragments better than a globe, but is less capacious.

3. It is well known that the bulb in action, especially when placed above the catheter, at an angle with it, communicates an oscillation to it of which some patients complain. By a special device the catheter is here made so steady while the instrument is in use that a separate stand is not wanted. This consists of a brace uniting the metal collar of the catheter with that of the glass receiver, and so steadying it that the catheter no longer feels the movement of the bulb. The conical projection of the bulb at the point where the catheter is attached contributes to the same result.

4. An elastic hose (fig. 2), which can be quickly connected with the top of the bulb, facilitates the operation. We can then, with a single compression

* *Lancet*, Sept. 24, 1881.

† A hinged or other valve-strainer at the mouth of the catheter, if it opens to allow the water and the *débris* to pass through, works well enough as a substitute for the tube-strainer. The catheter then opens directly into the bulb, and the route is the shortest possible one. But the tube-strainer is much more simple, and the two inches which it adds to the length of the catheter are quite unimportant. In fact, the usual length of the catheter itself might be reduced two inches, to shorten the route if desired. For strainers and strainer-traps, see the *Lancet*, Sept. 24, 1881. As there described, they are used in pairs, one protecting the entrance of the bulb, while the other, furnished with a valve and placed at the head of the catheter, acts as a trap. The former, for reasons already given, is not always advantageous, but an effectual catheter-trap to arrest returning fragments is necessary.

‡ *Lancet*, Sept. 24, 1881, figs. 8 and 11.

of the bulb, get rid of any air or discoloured water, and replace it with clean water without delay, and without uncoupling the catheter. Besides, no matter how the bulb may have been filled at first,* it is better to be able to vary the quantity of water at any moment afterward, and, although without a hose we can add water through a funnel, we cannot as easily withdraw it in the same way. We should be able to regulate the amount of water carefully, not only at the outset, according to the capacity of the particular bladder, but also during the operation. For example, it is sometimes desirable to draw it quickly away to allow for the muscular strain of retching, or to relieve the expulsive efforts of the bladder itself, which sometimes becomes very tense, and ejects water at the side of the catheter, even the large ones. More water is required at first, whilst fragments are numerous, to separate them and prevent their being wedged in entering the catheter. Later in the operation less water makes it easier to find the last fragment, the minimum being reached when the wall of the bladder vibrates against the orifice of the catheter as the bulb expands, painfully if the patient is conscious. It is then important to add water again, just enough to prevent this obstruction and no more. In short, there is no doubt that we can evacuate better by trying a little more or less water from time to time during the operation, and that this can be done more accurately and more readily by means of a hose than in any other way. With one end attached to the bulb, the other can conveniently remain in a vessel placed between the patient's knees, or in any convenient position, or remain unattached till wanted.

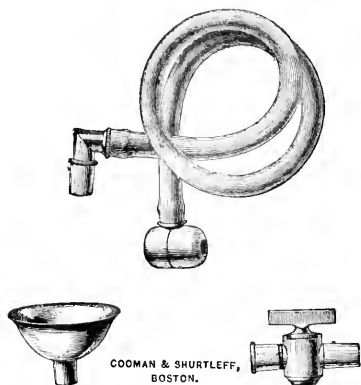


FIG. 2.

Apparatus belonging to the evacuator but not essential to it, viz., a funnel and a hose, both of which fit on the top of the bulb; and an extra stop-cock for the evacuating catheter.

The hose may be used or not. For those who prefer a funnel (fig. 2), one is furnished with the instrument; as also a second stop-cock (fig. 2), which I find useful, if attached to the head of the catheter, in keeping the bed-clothes dry when the bulb is to be removed.

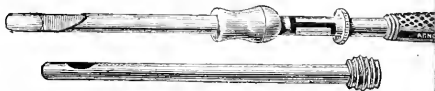
This evacuator is made by Codman & Shurtleff, Boston, U.S.A.

* We can quickly fill the evacuator from a pitcher, if we invert the bulb and detach the receiver. The little remaining air can afterwards escape from the hose or funnel.

ARTICLE 1275.

ANTISEPTIC TROCAR CONVERTIBLE INTO A PROBE-POINTED KNIFE.

DR. WARD COUSINS finds that in many of the minor operations of surgery the ready conversion of the exploring instrument into a bistoury will be found serviceable. At the point selected, the antiseptic trocar A (exhibited by him at the Ryde meeting of the British Medical Association, 1881) is first



introduced, and a portion of the fluid withdrawn for examination. Incision can now be safely performed by removing the India-rubber cover, and withdrawing the inner tube of the instrument; then introducing the knife, which is made to accurately fit the trocar, and to project a cutting edge of one inch and a quarter (B). A mark in the handle indicates the direction of the blade. The trocar is thus converted into a sheath for a probe-pointed bistoury, and is especially adapted for the treatment of empyema and other deep-seated abscesses.

DIETETIC NOVELTIES.

ARTICLE 1276.

HOWARD'S MALT HONEY.

THIS preparation of malt and honey can be safely recommended as a demulcent in cases of cough and bronchial catarrh; the digestive and nutritive properties of its components, malt and honey, being too well known to need remark.

The English agents for the Malt Honey, which is of American origin, are Davis, Davis, & Co., 60 Corporation St., Manchester.

MISCELLANY.

AN EXTENSIVE DRUG.—The most expensive drug in the market at present is ergotin, the German preparation of which costs 200 marks (10*l.*) a gramme (15 grs.), while a milligramme ($\frac{1}{70}$ gr.) of the French preparation in solution costs 1½ mark (1*s.* 6*d.*) (*Wien Med. Blätter*, June 21.)

INCUBATION OF DISEASED EGGS.—In the *Lancet*, May 1883, p. 919, attention is drawn to some observations lately contributed by M. Barthélemy. A fowl died of cholera, and during its illness laid fourteen eggs. These were subjected to incubation, side by side with some eggs obtained from a healthy fowl. They were closely watched, and no change was noticed in the two kinds until the ninth day, when the eggs of the diseased fowl ceased to develop, and none were hatched. Examination of the eggs showed that beneath the shell and at the surface of the allantois an extravasation of black blood existed, which was characterised by the presence of an odour quite similar to that arising from fowls that died of cholera. The blood of the diseased egg was full of bacteria, and the amniotic fluid contained monads of very minute size. M. Barthélemy contends that the ovum contained the germs of the micro-organisms with which the parent's blood teemed.

The London Medical Record.

GREAT BRITAIN AND IRELAND.

MEDICAL QUALIFICATIONS.

The number of examining bodies in the United Kingdom which grant degrees and diplomas capable of registration under the Medical Act of 1858 is nineteen. The registrable qualifications obtainable from them are as follows.

1. *Royal College of Physicians of London*: Diplomas of Licentiate, Member, and Fellow.
2. *Royal College of Surgeons of England*: Diplomas of Member and Fellow.
3. *Apothecaries' Society of London*: Licence.
4. *University of Oxford*: Degrees of Bachelor and Doctor of Medicine.
5. *University of Cambridge*: Degrees of Bachelor and Doctor of Medicine, and Bachelor and Master in Surgery.
6. *University of London*: Degrees of Bachelor of Medicine, Doctor of Medicine, Bachelor of Surgery, and Master in Surgery.
7. *University of Durham*: Licences in Medicine and in Surgery; Degrees of Bachelor of Medicine, Doctor of Medicine, Bachelor of Surgery, and Master in Surgery.
8. *Royal College of Physicians of Edinburgh*: Diplomas of Licentiate, Member, and Fellow.
9. *Royal College of Surgeons of Edinburgh*: Diplomas of Licentiate and Fellow.
10. *Faculty of Physicians and Surgeons of Glasgow*: Diplomas of Licentiate and Fellow.
11. *University of Aberdeen*: Degrees of Bachelor of Medicine, Doctor of Medicine, and Master in Surgery.
12. *University of Edinburgh*: Degrees of Bachelor of Medicine, Doctor of Medicine, and Master in Surgery.
13. *University of Glasgow*: Degrees of Bachelor of Medicine, Doctor of Medicine, and Master in Surgery.
14. *University of St. Andrews*: Degrees of Bachelor of Medicine, Doctor of Medicine, and Master in Surgery.
15. *King and Queen's College of Physicians in Ireland*: Diplomas of Member, Licentiate, and Fellow, and Licentiate in Midwifery.
16. *Royal College of Surgeons of Ireland*: Diplomas of Licentiate and Fellow; and Diploma in Midwifery.
17. *Apothecaries' Hall of Ireland*: Licence.
18. *University of Dublin*: Licences in Medicine and in Surgery; Degrees of Bachelor and Doctor of Medicine, and Bachelor and Master in Surgery.
19. *Royal University in Ireland*: Degrees of Bachelor of Medicine, Doctor of Medicine, and Master in Surgery; and a Special Diploma in Obstetrics.

In addition, the Royal Colleges of Surgeons and the Faculty of Physicians and Surgeons of Glasgow grant licences in Dental Surgery, which are registrable under the Dentists' Act.

Certificates and diplomas in State Medicine and

Public Health (which at present are not registrable) are conferred after examination by the Universities of Cambridge, London, Durham, Edinburgh, Glasgow, and Dublin; by the Royal University of Ireland; by the Royal College of Physicians in Edinburgh; and by the King and Queen's College of Physicians in Ireland.

The following is a general summary of the conditions required on the part of candidates for examination; but, for further details, our readers must consult the regulations issued yearly in the Student's numbers of our contemporaries; or apply to the officers of the respective Universities, Colleges, and Halls.

The regulations of the Examining Bodies are, with very few exceptions, framed in accordance with the Resolutions and Recommendations of the General Medical Council.

Every medical student is required to be registered at the office of the General Medical Council; prior to which he must have passed an examination in subjects of general education. As evidence of this are recognised:—1. The possession of a degree in Arts of an University of the United Kingdom or of the Colonies, or of some University recognised by the Medical Council; 2. A certificate of having passed an examination in subjects of general education conducted by some one or other of the educational bodies, a list of which is given with the 'Recommendations of the General Medical Council.' No person is allowed to be registered as a medical student unless he shall have previously passed a preliminary examination in the following subjects of general education: 1. English Language, including Grammar and Composition; 2. English History; 3. Modern Geography; 4. Latin, including Translation from the Original, and Grammar; 5. Elements of Mathematics, comprising (a) Arithmetic, including Vulgar and Decimal Fractions; (b) Algebra, including Simple Equations; (c) Geometry, including the first two books of Euclid, or the subjects thereof; 6. Elementary Mechanics of Solids and Fluids, comprising the Elements of Statics, Dynamics, and Hydrostatics (this subject may be passed either as preliminary, or before, or at the first professional examination); 7. One of the following optional subjects: (a) Greek; (b) French; (c) German; (d) Italian; (e) Any other modern language; (f) Logic; (g) Botany; (h) Elementary Chemistry. The preliminary examination having been passed, the student should at once register, as the commencement of the course of professional study is not recognised as dating fifteen days earlier than the date of registration. Forms for registration are supplied by the licensing bodies and at the schools and hospitals.

After passing the preliminary examination, the student may commence his medical education in one of the following ways (according to the regulations of the licensing body with which he intends to become connected): 1. By attendance for one year on the practice of a provincial hospital or other public institution recognised for this purpose; 2. As the pupil, for one year, of a legally qualified surgeon holding sufficient public appointments to afford such opportunities of practical instruction as shall be satisfactory to the authorities; 3. By entering at once at a recognised medical school.

The minimum period of medical study required is forty-five months from the date of registration as a student, of which time at least two years and a half

must be passed at a recognised medical school. For the degrees of the Universities (except that of London and the Royal University in Ireland) the candidate is required to spend a portion of the time of medical study at the University which grants the degree, or at a college in connection therewith.

To obtain a degree, diploma, or licence, two examinations at least in professional subjects must be passed; first in the elementary subjects—Chemistry, Anatomy, Physiology, and *Materia Medica*; and afterwards in the practical subjects. The final examination, which must not be passed until the completion of the fourth year of study, comprises:—1. Pathology (including Morbid Anatomy); 2. Medicine (including Medical Anatomy, Clinical Medicine, and Therapeutics); 3. Surgery (including Surgical Anatomy and Clinical Surgery); 4. Midwifery; 5. Forensic Medicine.

Special arrangements exist at the Universities of Durham and St. Andrew's for granting degrees to practitioners of medicine above forty years of age.

INSTRUCTION IN THE MEDICAL SCHOOLS.

THE medical schools in London are those of St. Bartholomew's, Charing Cross, St. George's, Guy's, the London, St. Mary's, the Middlesex, St. Thomas's, and Westminster Hospitals; and the Medical Faculties of King's and University Colleges. To these may be added the London School of Medicine for Women, with which the Royal Free Hospital is connected for the purpose of clinical instruction, and Mr. Thomas Cooke's School of Anatomy and Surgery.

In the provinces in England there are the medical departments of Queen's College, Birmingham, Owens College, Manchester, and the Medical College of the University of Durham, at Newcastle-on-Tyne; the Medical School affiliated to University College, Bristol; the Medical Faculty of University College, Liverpool (Royal Infirmary School of Medicine); together with medical schools at Leeds and Sheffield. The Universities of Oxford and Cambridge do not profess to give a complete education, but instruction in many branches is provided for at Cambridge.

In Scotland, the medical schools in which a complete course of professional education is given are those attached to the Universities of Aberdeen, Edinburgh, and Glasgow; the Extra-academical School in Edinburgh; and Anderson's College, the Royal Infirmary School of Medicine, and the Western School of Medicine, in Glasgow.

In Ireland, the medical schools are, the School of Physic in Ireland, the School of the Royal College of Surgeons of Ireland and the Colleges at Belfast, Cork, and Galway. There are also several medical schools in Dublin: viz., the Carmichael College of Medicine and Surgery, the Catholic University, and the Ledwich School of Anatomy, Medicine, and Surgery.

For information regarding these institutions reference must, as we have already said, be made to the published prospectuses. We shall, however, endeavour to classify a part of the information therein contained under certain heads, viz., Clinical Instruction; Practical Surgery; Special Departments; Practical Physiology; Hospital Appointments; Tutorial Instruction; and Scholarships, Exhibitions, and Prizes.

CLINICAL INSTRUCTION.—At all the hospitals connected with medical schools, the physicians and surgeons deliver at stated intervals lectures on the cases under their care, in addition to making comments during their visits to the wards or in the operating theatre. In some instances, special provision is also made by the appointment of one or more of the hospital staff as clinical professors or lecturers; and in several of the hospitals a certain number of beds are specially devoted to the purpose of clinical instruction. At Guy's Hospital forty patients are set aside in the medical wards, and are visited and their cases lectured on by the physicians in the winter and by the assistant-physicians in the summer session; the surgeons also select cases for clinical instruction. A similar arrangement exists at the London Hospital, where two wards are devoted to the express purpose of teaching clinical medicine; the cases being lectured on by the physicians in the winter, and by the physicians or assistant-physicians in the summer. Special clinical professorships in medicine and surgery, in addition to the ordinary clinical lectures given by the physicians and surgeons, exist at the King's and University College Hospitals. In the former, the professor of clinical medicine is Dr. George Johnson; and the professors of clinical surgery are Mr. John Wood and Mr. Lister. In University College Hospital there are two special chairs, known as the 'Holme Professorships' of Clinical Medicine and Surgery. The Holme professor of clinical medicine is Dr. Wilson Fox, who delivers clinical lectures, on Tuesdays and Thursdays, on the significance of the general signs of disease, and on the special modes of examination, diagnosis, and treatment of individual cases. There are also two assistant teachers of clinical medicine, Dr. Gowers and Dr. Barlow, who hold classes for instruction in physical examination, the investigation of diseases of the circulatory, respiratory, and nervous systems, the examination of the urine, &c. The Holme professor of clinical surgery, Mr. Christopher Heath, gives a clinical lecture once a week, and also holds a weekly clinical examination on surgical cases in the operating theatre; these examinations, while open to the whole class, being specially intended for the instruction of the senior students. Mr. Marcus Beck and Mr. A. E. Barker are assistant-professors of clinical surgery. A special course of lectures on clinical surgery has been established in St. Thomas's Hospital, the lecturer being Mr. John Croft. In Cambridge, clinical instruction in medicine and surgery is given at Addenbrooke's Hospital throughout the year. At Leeds, clinical classes meet at appointed hours to receive instruction in the wards from the physicians. In the Liverpool Royal Infirmary, Dr. Glynn (one of the physicians) gives, once a week during the winter, practical instruction in clinical medicine and the methods of physical diagnosis. Two clinical tutors, in the Medical and Surgical Wards, have also been appointed. In the Owens College, Manchester, there is a special professorship of clinical medicine, held by Dr. William Roberts. A medical and a surgical clinical lecture are given every week in the Manchester Royal Infirmary. Medical and Surgical Ward Classes are formed by the members of the Infirmary staff at each of the trimestral periods, commencing with October, January, and May. In the Infirmarys of Aberdeen, Edinburgh, and Glasgow, clinical lectures on medicine, surgery, and midwifery are delivered by the medical staff of each institution. The Universities

of Edinburgh and Glasgow have special professors of Clinical Medicine and Surgery. In the medical schools of Ireland, clinical courses are given through the session.

In connection with the subject of Clinical Instruction, reference must be made to means provided at several hospitals for the special purpose of training the students in the observation of cases. At the Charing Cross Hospital, a course of practical medicine is given by Dr. M. Lubbock. It includes the methods of examining organs, the examination of morbid products, case-taking, the management of the sick-room, &c. At St. George's Hospital, a similar course is given by Dr. Whipham. In Guy's Hospital, the ward clerks (of whom 150 or more are appointed during the year) are assisted in the examination of cases and the preparation of reports by the medical and surgical registrars, who also instruct them in physical diagnosis and in chemical and microscopical investigation. Similarly, at the London Hospital, the clinical clerks and dressers are assisted by the house-physicians and house-surgeons. At several of the medical schools there are medical tutors, who instruct the students in the physical examination and systematic description of cases. The provision made at University College Hospital has been referred to above. Classes for medical demonstration are held in the Manchester Royal Infirmary twice weekly during the summer by two of the medical officers; in which classes instruction is given in anatomy as applied to medicine, in physical and chemical examination, &c. In the University of Edinburgh, a class for instruction in clinical medicine is held in the wards of the Royal Infirmary by the clinical tutor.

PRACTICAL SURGERY.—At most of the schools, special provision is made for instruction in this important branch of medical education. The courses embrace such subjects as the application of anatomy to surgery on the living person or the dead body; the methods of proceeding, and the manipulations necessary, in order to detect the effects of diseases and accidents; the performance of operations on the dead body; the use of surgical apparatus; the examination of diseased structures, as illustrated by preparations and recent specimens. The course of practical instruction is generally distinct from that of systematic surgery, and is in several instances given in the summer session. In the Liverpool School of Medicine, the lectures on Systematic Surgery are given thrice weekly, and there is a concurrent course of Practical Surgery twice weekly; besides which, a course of Operative Surgery is given in the summer.

SPECIAL DEPARTMENTS.—Due provision is made for both theoretical and practical instruction in *Midwifery and Diseases of Women*, so as to enable students to meet the requirements of the examining bodies.

Ophthalmic Surgery is taught by lectures and observation of cases at all the London schools; each hospital receiving ophthalmic patients except the Charing Cross, the pupils of which are admitted to the practice of the Royal Westminster Ophthalmic Hospital. As far as can be gathered from the prospectuses, the material available for the practical teaching of this subject (as far as regards in-patients) is as follows: St. Bartholomew's Hospital, 26 beds; Charing Cross (Royal Westminster Ophthalmic Hospital), 50 beds; Guy's Hospital, 50 beds (also

about 3,000 out-patients, and an average of more than 1,800 operations); London Hospital, 12 beds. The other hospitals have beds for ophthalmic cases, but the number is not stated. Provision for teaching ophthalmic surgery, theoretical and practical, is made in the provincial schools. In the Universities of Aberdeen and Glasgow, instruction in ophthalmic surgery is given; and the students are admitted to see the practice of ophthalmic institutions in those cities. In the Extra-academical School of Edinburgh, and in the Schools of Medicine in Glasgow, courses of lectures on the subject are given. In Ireland, provision is made for the teaching of ophthalmic surgery in most of the medical schools.

Aural Surgery is taught as a special branch at all the London medical schools, and at the Leeds School of Medicine and the Bristol, Manchester, and Newcastle Royal Infirmaries among the provincial schools; also in the Extra-academical School in Edinburgh, and in Anderson's College and the Royal Infirmary School of Medicine in Glasgow.

Diseases of the Throat.—Special instruction in the diagnosis and treatment of diseases of the throat and larynx, and the use of the laryngoscope, is given at St. Bartholomew's Hospital by Mr. Butlin; at King's College Hospital by Mr. Royes Bell; at the London Hospital by Dr. Morell Mackenzie, who delivers a course of lectures on the subject; at the Middlesex Hospital by Mr. Hensman (with Diseases of the Ear); at St. Thomas's Hospital by Dr. Semon; at University College Hospital by Dr. Poore; at the Westminster Hospital by Dr. De Havilland Hall; at the Bristol Royal Infirmary by Mr. Harsant; at the Manchester Royal Infirmary by Dr. H. Simpson; at the Newcastle-on-Tyne Infirmary by Dr. Hume (with Diseases of the Ear); in the Edinburgh Royal Infirmary by Dr. McBride (with Diseases of the Ear); and in the Glasgow Royal Infirmary by Dr. E. Watson.

Diseases of the Skin.—For the teaching of this important department of medicine, special provision is made in all the London Hospitals, in the Bristol General Hospital, in the Manchester Royal Infirmary, and in the Newcastle-on-Tyne Infirmary. Demonstrations of cases, and clinical lectures, are given at stated intervals, generally once a week. In University College Hospital, Dr. Radcliffe Crocker, the physician in this department, gives clinical lectures on diseases of the skin once a fortnight. A course of lectures is given in the Edinburgh Extra-academical School. In Dublin, a course of instruction on diseases of the skin is given at the Adelaide Hospital.

Orthopædic Surgery is taught at St. Bartholomew's Hospital by Mr. Walsham; and at the Westminster Hospital by Mr. Richard Davy. Mr. Hardie gives instruction on this subject at the Manchester Royal Infirmary.

Mental Diseases.—Lectures on Psychological Medicine are delivered as a separate course in most of the London schools. Special arrangements for clinical instruction are made in several instances; thus the students of St. Bartholomew's Hospital have access to a large public asylum; those of Guy's Hospital are admitted to Bethlehem Hospital, and those of the London Hospital to Bethnal House. Two students of the London Schools, qualified to practise, are appointed for six months as resident clinical assistants in Bethlehem Hospital. At Cambridge, clinical instruction is given at the county asylum at Fulbourn. At the Leeds School of Medicine,

the students attend the West Riding Lunatic Asylum at Wakefield, where Dr. Major, the Medical Director, gives clinical lectures in addition to a course of systematic lectures at the school. In Manchester, a course of clinical lectures on mental diseases is given to senior students of Owens College by Mr. G. W. Mould, at the Asylum in Cheadle. At the Newcastle-on-Tyne College, instruction in psychological medicine is given by Mr. Wickham, medical superintendent of Coxlodge Asylum. In the University of Edinburgh, Dr. Clouston gives a course of Medical Psychology and Mental Diseases, with practical instruction at the Morningside Asylum. In the Extra-academical School, a similar course is delivered by Dr. Batty Tuke. In the Glasgow Royal Infirmary School of Medicine, a course of lectures on Mental Diseases is given by Dr. A. Robertson, in the City Parochial Asylum. In Dublin, special courses of lectures on mental diseases are given in the Richmond, Whitworth, and Hardwicke Hospitals, adjoining which is a large asylum containing over 1,000 patients. The lectures on psychological medicine are mostly delivered during the summer session.

Public Health.—Special courses of lectures on this subject are given at St. Bartholomew's, Charing Cross, Guy's, the Middlesex and St. Thomas's Hospitals, and at King's and University Colleges. At St. George's Hospital it is included in the course of Medicine; and at the London, St. Mary's, and Westminster Hospitals, in that on Forensic Medicine. In University College, besides the lectures, instruction in the chemical and microscopic examination of air, water, and food, is given in the hygienic laboratory. In several of the provincial schools, the subject is included in the lectures on Forensic Medicine. In Owens College, Manchester, lectures on hygiene are delivered by Dr. Ransome; in the Bristol Medical School by Mr. Davies; in the Newcastle College of Medicine by Dr. Armstrong; and in the Sheffield Medical School by Dr. Drew. In Scotland, also, the instruction in Public Health is given in connection with the lectures on Medical Jurisprudence. In Dublin there is a professorship of Hygiene in the school of the Royal College of Surgeons. In London, instruction in Sanitary Science is also given in the Parkes Museum of Hygiene, which has been removed from University College to Margaret Street.

PRACTICAL PHYSIOLOGY AND HISTOLOGY.—This subject is taught in all the schools: but more elaborate provision is made in some cases than in others.

At *St. Bartholomew's Hospital*, the course is conducted by a demonstrator and two assistant demonstrators under the superintendence of the lecturers on Physiology and Chemistry. Dr. Klein gives a course of lectures on General Histology, with demonstrations, which form part of the course on General Anatomy and Physiology.

At *Guy's Hospital*, Mr. Golding-Bird gives a course of Histological demonstrations of the elementary tissues and the chief organs of the body, with their behaviour and re-agents, as studied with the microscope. The course includes about thirty-five demonstrations, and is gone through twice in the winter session. A laboratory class in Practical Physiology, intended for advanced students, is held by Dr. Pye-Smith in the summer.

At *University College*, an elaborate course of instruction in Practical Physiology is given by

Mr. Schäfer (Jodrell Professor of Physiology), and assistants. For the details, we must refer our readers to the prospectus of the Medical Faculty of the College. Practical instruction in Zoology and Comparative Anatomy is also given by the professor, Mr. Ray Lankester, and his assistants.

At the *Westminster Hospital*, a course of lectures and demonstrations on Histology and Practical Physiology will be given by Dr. Heneage Gibbs. The course will consist of three parts:—1. Histology of the Simple Normal Tissues, delivered during May, June, and July; 2. Lectures and demonstrations on the Histology of the Normal Organs and Viscera, delivered in October, November, and December; 3. Physiological Chemistry.

In *Owens College, Manchester*, a very complete course of practical Physiology is conducted during the year by Dr. Arthur Ganjee, the Brackenbury Professor of Physiology. The class meets for systematic work in Practical Histology and Physiological Chemistry, and for demonstrations in Experimental Physiology. The Physiological Laboratory is open daily during the winter and summer sessions.

Practical Physiology is taught in the University of Edinburgh, by Professor Rutherford; in that of Aberdeen, by Professor Stirling; and in that of Glasgow, by Professor Fleming. Courses are also given in the Edinburgh Extra-academical School; and in the Royal Infirmary School of Medicine, in Anderson's College, and in the Western Medical School, in Glasgow.

HOSPITAL APPOINTMENTS.—Numerous appointments at the hospitals are open to the diligent student, without payment (except in the few cases hereinafter noticed) of any fee. For the resident appointments, a qualification to practise is required; and, in some instances, a salary is paid in addition to the provision of rooms and board.

At *St. Bartholomew's Hospital*, four house-physicians and ten house-surgeons are appointed annually. A resident midwifery assistant is appointed every six months; an ophthalmic house-surgeon is also appointed for six months, and may be re-elected. A senior and a junior assistant-chloroformist are appointed annually. Each of these officers is provided with rooms by the hospital authorities. The senior assistant-chloroformist receives £50 a year; each of the others has an annual salary of £25. Clinical clerks to the medical in-patients, and to the physician-accoucheur, also clerks and dressers for the out-patient and special departments, are chosen from among the students. Forty dressers for the surgical in-patients and the surgical casualty department are selected each year; and other in-patient dresserships may be obtained on payment of £10 10s. for three months, or £16 16s. for six months.

At *Charing Cross Hospital*, a medical and a surgical registrar are appointed, each with a salary of £40 a year. Two house-physicians, two house-surgeons, and a resident obstetric officer are appointed every six months, after examination. The clinical clerks—three to each physician, and two to each assistant-physician, and the dressers—three to each surgeon and assistant-surgeon, and also two clinical clerks to the physician-accoucheur, are appointed for periods of four months. Each student must act as in-patient clerk and dresser. Pathological assistants, who assist at the *post mortem* examinations, are appointed each month for four months.

At *St. George's Hospital*, house-physicians and house-surgeons are appointed half-yearly from among the perpetual pupils. The appointments are held for twelve months, with board and residence in the hospital, free of expense. Each pays a deposit of 50 guineas, which is returned if the duties of his office have been satisfactorily performed. A curator of the Pathological Museum, and a medical and a surgical registrar, each with a salary of £50; an ophthalmic registrar and a microscopical pathologist, each with a salary of £25; and an obstetric assistant, with board, residence, and a salary of £100, are appointed annually. An assistant-house-physician, an assistant house-surgeon, an ophthalmic assistant, two assistant medical registrars, and an assistant surgical registrar, are appointed every six months. Clinical clerks and dressers are also appointed.

At *Guy's Hospital*, there are appointed during the year 6 senior and 6 junior house-physicians, 6 senior and 6 junior house-surgeons, 12 senior and 12 junior obstetric residents, 24 surgeons' dressers, 18 clinical assistants, 24 dressers in the eye wards, 24 *post mortem* clerks, 24 obstetric out-patient clerks, 36 assistant physicians' clerks, 12 dental surgeons' dressers, 12 aural surgeons' dressers, 64 medical clinical clerks, 72 or more assistant-surgeons' dressers and dressers in the surgery, 12 obstetric ward clerks, 80 surgical clinical clerks, 32 assistant-surgeons' clerks, 60 extern obstetric assistants, and clerks in the room for applying electricity. All students have opportunities of becoming clinical ward clerks to the physicians and surgeons, as well as dressers to the assistant-surgeons, and dressers in the surgery; and the diligence with which they perform the duties of these offices is an important test of their fitness for the higher posts.

At *King's College Hospital*, a physician's assistant, house-surgeons, a physician-accoucheur's assistant, clinical clerks, and dressers, are chosen by examination from matriculated students of the College who are pupils at the hospital.

At the *London Hospital*, every student is expected to act as clinical clerk to the medical out-patients for six weeks in his second year, and to dress for three months in the surgical out-patient department; also to act as *post mortem* clerk for three months. The following appointments are also made: five house-physicians (qualified for registration) every six months; clinical clerks (open to all full pupils) every three months; a resident accoucheur (qualified) every six months; clinical obstetric clerks every three months in the in-patient, and every six weeks in the out-patient department; five house-surgeons, for six months (each being provided with board and residence); surgical dressers every three months; three clinical assistants (each with a salary at the rate of £80 *per annum*); a medical and a surgical registrar (each with £100 *per annum*); a dental assistant, ophthalmic and aural dressers, and *post mortem* clerks.

At *St. Mary's Hospital*, four resident medical officers are appointed for twelve months, and a resident obstetric officer for six months. They all reside in the hospital, free of expense. All students are required to perform the duties of clinical clerk and dresser for eight months after passing the primary examination, after having acted as dressers in the casualty and electrical departments.

At the *Middlesex Hospital*, two house-surgeons, six resident physicians' assistants, and a resident

obstetric physician's assistant, are appointed by competitive examination. They pay, on appointment, fees varying from ten to twenty guineas, according to circumstances. The appointments of clinical clerks and dressers are so arranged that every student may, at some period of his attendance on hospital practice, hold both a clerkship and a dressership. Obstetric physician's clerks and ophthalmic dressers are appointed.

At *St. Thomas's Hospital*, two resident and one non-resident house-physician, an assistant house-physician, two house-surgeons, an assistant house-surgeon, and a resident accoucheur, are selected every three months from gentlemen who have obtained professional diplomas. An ophthalmic clinical assistant is also appointed with a salary of £50 *per annum* for six months. Clinical clerks and dressers to in-patients are selected from pupils, to the number in all of at least 100 each year; and clinical clerks and dressers to out-patients to the number of 80 or 100 each year. Two registrars, at an annual salary of £100 each, are appointed each year. There are also numerous minor appointments of anatomical assistants, prosectors, obstetric clerk, &c., open to all students.

In *University College Hospital*, eight house-physicians, six house-surgeons, and four obstetric assistants, are selected annually by examination from among the senior students. They reside in the hospital, paying for their board. Out-patient physicians, and surgeons' assistants, clinical clerks, surgeons' dressers, and ophthalmic surgeons' assistants, are selected from among the pupils who are also students of the College.

At the *Westminster Hospital*, a curator of the museum, and pathologist, with a salary of £52 *10s.*, and a medical and a surgical registrar, each with a salary of £40, are appointed annually. Two house-physicians, a house-surgeon, and a resident obstetric assistant, are appointed by examination for six months; they are provided with board and rooms in the hospital, and the senior house-physician, as chloroformist, receives an additional honorarium of £21. An assistant house-surgeon is appointed by examination. Clinical assistants to the assistant-physicians and assistant-surgeons, and to the officers in charge of special departments are appointed from among the most advanced students of the fourth year. Every student must act as out-patient dresser during three months in his first year, and afterwards hold the office of in-patient dresser and clinical clerk during a period of three months each.

In the *Birmingham General Hospital*, a resident medical and a resident surgical assistant, and two resident dressers, are appointed, each for six months.

At the *Queen's Hospital, Birmingham*, a resident obstetric assistant is appointed every six months and a resident dresser every three months.

At the *Bristol Royal Infirmary*, students are appointed to clinical clerkships in their third and fourth years. Surgeons' dressers are appointed after the first year of study, and, when sufficiently qualified, reside in the hospital in weekly rotation, and act under the supervision of the house-surgeon. The dressers and clinical clerks pay fees in addition to those for hospital practice; the former £5 *5s.* for each six months, the latter £5 *5s.* for six months, or £8 *8s.* for a year. Obstetric clerks pay £3 *3s.* for three months. A pathological clerk is appointed every four months.

At the *Bristol General Hospital*, clinical clerks,

dressers, and obstetric clerks are appointed. The clinical clerks and dressers pay each an extra fee of £5 5s. for six months; and the obstetric clerks £3 3s. for three months. The dressers reside in the hospital in rotation, free of expense.

In the *Leeds General Infirmary*, all students must hold the office of clinical clerk and dresser. A house-physician and house-surgeon are elected from time to time. There are four resident assistants; two are elected every six months, and hold office for one year.

At the *Liverpool Royal Infirmary*, two house-physicians and three house-surgeons are selected (by competitive examination if necessary) from pupils of the school who have obtained a legal qualification to practise; they hold office for six months. Three clinical clerks are appointed to each physician, and three or more dressers to each surgeon, and two clerks to the wards for special diseases of women; they hold office for three months. *Post mortem* clerks are appointed for periods of six weeks. This appointment is required to be held by every student.

At the *Manchester Royal Infirmary*, a registrar, a pathological registrar, and two assistant medical officers, are appointed annually, each with a salary of £100. The following resident medical officers are appointed: at Infirmary, for two years, salary £250 *per annum*; at Cheadle Lunatic Asylum, for one year, £150 *per annum*; at Monsall Fever Hospital, for one year, £200 *per annum*. A resident surgical officer is appointed annually, and receives £150. Eight house-surgeons, and four house-physicians are appointed in each year. An assistant to the resident medical officer at Monsall, and one at Cheadle, are appointed every six months. House-surgeons must possess registrable qualifications. Two or more clinical clerks are attached to each physician and assistant-physician, and two or more dressers to each surgeon and assistant-surgeon: two clerks are also appointed to the pathological registrar and to each of the assistant medical officers. They hold these for three months. Accident-room dressers are also appointed monthly, for two months.

In the *Newcastle-on-Tyne Infirmary*, four times in the year, two resident medical assistants, two resident surgical assistants, three non-resident clinical clerks, and sixteen dressers, are appointed for three months. Assistants in the pathological department and to the dental surgeon are also appointed.

In the *Edinburgh Royal Infirmary*, resident physicians and resident surgeons are appointed for six months. Clinical clerks are also appointed; and each surgeon appoints several dressers for six months. There are also assistants in the pathological department.

In the *Glasgow Royal Infirmary*, five physicians' and five surgeons' assistants are boarded and lodged in the Hospital at the rate of £25 *per annum*. The appointments can be held for twelve months, six in the medical and six in the surgical wards. These appointments are open to students who have passed all their examinations except the last, or to qualified gentlemen. There are also numerous clerkships and dresserships.

TUTORIAL INSTRUCTION.—In addition to the ordinary courses of lectures and hospital practice, and practical instruction, many of the medical

schools have an officer whose special duty it is to direct the pupils in their studies, and to hold classes for the guidance of those who are about to present themselves for examination before the licensing boards.

SCHOLARSHIPS, EXHIBITIONS, AND PRIZES.—In addition to the rewards for diligence in professional study, many of the medical schools offer yearly one or more scholarships, usually in general literature, and in some instances in science. The competition is open to gentlemen about to commence their hospital studies; and the successful candidate is expected to enter as a pupil of the school in which the examination has been passed. In the examination in general literature, the subjects are usually those of preliminary education as defined by the General Medical Council, or of the Matriculation Examination of the University of London. In the Science scholarships, the usual subjects are Chemistry, Botany, and Zoology. The yearly value of the scholarships and exhibitions varies from £100 to £10.

There are also many scholarships and exhibitions, varying in value from £100 to £20, open to students during their period of professional study, or (as at St. George's Hospital) within a limited time after they have passed their final examinations for licences to practise. These exhibitions are in some cases (as at St. Bartholomew's and the London Hospitals) awarded after examination in subjects of preliminary education; but in most of the schools they are given after examination in groups of subjects of professional education, elementary or practical.

Special rewards are also offered in many of the schools for evidence of proficiency in clinical observation.

For further information respecting the scholarships and exhibitions, and regarding the class prizes, as well as for many details which we are obliged to omit, our readers must consult the prospectuses of the schools and our advertising columns.

FRANCE.

GRADUATION IN MEDICINE.

THE Degree of Doctor in Medicine in the University of France is conferred by the Faculties of Paris, Montpellier, Nancy, Bordeaux, Lille, and Lyons, under regulations laid down by the Government.

1. The studies necessary for obtaining the degree last four years; during the first three years they may be carried on either in the Faculties, in the *Écoles de plein exercice*, or in the preparatory schools of medicine and pharmacy. The studies of the fourth year can only be made in a Faculty or in an *École de plein exercice*.

2. Candidates must produce, when they take the first inscription, the diploma of Bachelor of Sciences, limited as regards the mathematical part. They must undergo five examinations and defend a thesis. The second, third, and fifth examinations are each divided into two parts.

3. The five examinations are as follows. *First Examination*: Physics, chemistry, medical natural history. *Second Examination*: First part, anatomy and histology; second part, physiology. *Third Examination*: First part, external pathology (surgery),

midwifery, operative surgery; second part, internal pathology (medicine), general pathology. *Fourth Examination:* Hygiene, legal medicine, therapeutics, materia medica, and pharmacology. *Fifth Examination:* First part, clinical surgery and obstetrics; second part, clinical medicine, practical demonstrations in pathological anatomy; and a thesis on a subject chosen by the candidate.

4. The first examination takes place after the fourth inscription and before the fifth; the first part of the second examination, after the tenth inscription, and before the twelfth; and the second part after the twelfth inscription and before the fourteenth. The third examination cannot be passed until the end of the sixth *trimestre* of study. Any candidate who does not pass the first examination in November, at the latest, will be put back to the end of the scholastic year, and will not be permitted to take out any inscription during the course of that year.

5. Candidates for the doctorate, pupils of *écoles de plein exercice* or of the preparatory schools, are examined by the Faculties at the periods fixed in the preceding article. They may, however, defer the first examination until after the twelfth inscription. In that case they must pass the second examination before the thirteenth inscription, and, from the commencement of the second year of study, are subjected to interrogations at the end of each six months, the results of which are transmitted to the Faculties, to be taken into account in the examinations for the doctorate.

6. The inscriptions for *officier de santé* cannot be converted into inscriptions for the doctorate, in the case of pupils actually studying; but this conversion may be permitted in the case of *officiers de santé* who have practised medicine for at least two years.

7. Practical work in the laboratory, dissection, and residence near the hospitals, are obligatory. Each annual period of laboratory work and dissection comprises a six months' course, or *semestre*. Residence near the hospitals must not continue less than two years.

8. The fees to be paid by candidates for the degree of Doctor in Medicine are fixed as follows.

Sixteen inscriptions at 32 francs 50 centimes each	520 francs.
Eight examinations at 30 francs.....	240 "
Eight certificates of proficiency at 25 francs	200 "
Expenses of materials for practical study, first year, 60 francs; second and third years, each 40 francs; fourth year, 20 francs	160 "
Thesis	100 "
Certificate of proficiency	40 "
Diploma	100 "
Total.....	1,360 "

9. Every candidate, who, without an excuse admitted by the jury, does not answer when his name is called, on the day of which notice has been given to him, is set back for three months, and forfeits the fees which he has paid.

10. The fees paid by the pupils of the Faculties go to the public treasury. The fees paid for inscriptions and for practical work by the pupils of the *écoles de plein exercice* and the preparatory schools go to the municipal treasuries.

A foreigner holding medical qualifications to prac-

tise medicine, if desirous of obtaining the degree of the University of France, must show to the Minister of Public Instruction his diploma, and the certificates of the course of study which he has undergone in his own University or Medical School. The Minister, if satisfied, will authorise the candidate to present himself for the five final examinations. These are conducted in the French language. The fees are as follows: each examination 90 francs = 450 francs; thesis, 240 francs; fifteen subscriptions, 320 francs; three *examens de fin d'année*, 90 francs; diplomas of *bachelier ès lettres et ès sciences*, 100 francs; in all, 1,400 francs. The candidate has to pay all the fees, although exempted from the necessity of passing the preliminary examinations, and those for the *bachelier ès lettres et ès sciences*.

MEDICAL EDUCATION.

Medical Education in France is under the control of the State, and is given in the Faculties of Medicine and Pharmacy, the *Écoles de Plein Exercice*, and the Preparatory Schools of Medicine and Pharmacy.

The Faculties are six in number: five—those of Paris, Montpellier, Nancy, Lille, and Lyons—are schools of Medicine; the other, at Bordeaux, is a mixed Faculty of Medicine and Pharmacy. They confer, besides the same diplomas and certificates as the other schools, the diplomas of doctor in medicine and *pharmacien* and midwife of the first class.

There are two *écoles de plein exercice*—viz., at Nantes and at Marseilles. They are entitled to give the same certificates as the preparatory schools, but candidates for the doctorate may take out sixteen inscriptions in them.

The Preparatory Schools are entitled to give diplomas or certificates of *Officier de Santé* and *Pharmacien*, herbalist, or midwife, of the second class. Candidates for the doctorate can study in them three years, and take out twelve inscriptions. There are preparatory schools at Algiers, Amiens, Angers, Arras, Besançon, Caen, Clermont Ferrand, Dijon, Grenoble, Limoges, Poitiers, Reims, Rennes, Rouen, Toulouse, and Tours.

FACULTY OF MEDICINE IN PARIS.

The School of Medicine in Paris is open to all who wish to attend the courses and take degrees. Great facilities are afforded to British and foreign students for the prosecution of their studies, all lectures being given gratuitously, and no payment being required for hospital attendance. For dissections, however, a payment of 30 francs or more is expected from each student.

The medical sessions begin for winter on October 15th, and for summer on April 15th of each year.

The instruction in the Faculty of Medicine in Paris is given by the following professors: M. Sappey, Anatomy; M. Robin, Histology; M. Béclard and M. Richet (*agrégé*), Physiology; M. Wurtz and M. Henninger (*agrégé*), Medical Chemistry; M. Baillon, Natural History; M. Gavarret, Medical Physics; M. Regnault, Pharmacology; M. Jaccoud, M. Peter, and M. Dieulafoy, Internal Pathology or Medicine; M. Trélat and M. Berger (*agrégé*), External Pathology or Surgery; M. Guyon and M. Duplay, Surgical Pathology; M. Le Fort, Practical Surgery; M. Hayem, Materia Medica and Therapeutics; M. Cornil, Pathological Anatomy; M. Pajot and M. Pinard (*agrégé*), Midwifery; M.

Bouchardat, Hygiene; M. Brouardel, Forensic Medicine; M. Bouchard, General Pathology and Therapeutics; M. Vulpian, Comparative and Experimental Pathology; MM. G. Sée, Lasèque, Hardy, Potain, Clinical Medicine; MM. Gosselin, Richet, Verneuil, Trélat, Clinical Surgery; M. Depaul, Clinical Midwifery; M. Charcot, Diseases of the Nervous System; M. Panas, Clinical Ophthalmology; M. Laboulbène, History of Medicine; M. Fournier, Diseases of the Skin and Venereal Diseases.

Auxiliary courses are given by *agrégé* professors as follows: M. Hanriot, Biological Chemistry; M. Bocquillon, Medical Zoology; M. Rendu, Medicine; M. Terrillon, Surgery; M. Charpentier, Obstetrics; M. Cadiat, Physiology; M. Joffroy, Pathological Anatomy.

Practical instruction is given under the guidance of the following *chefs des travaux*: M. Farabeuf, Anatomy; M. Faguet, Natural History; M. A. Gautier, Medical Chemistry; M. Gay, Medical Physics; M. Gombault, Pathological Anatomy, M. Cadiat, Histology; M. Laorède, Physiology.

The Faculty of Medicine possesses Laboratories for Anatomy (Professor Sappey), Operative Surgery (Professor Le Fort), Physics (Professor Gavarret), Chemistry (Professor Wurtz), Biological Chemistry (Professor Wurtz), Practical Forensic Medicine (Professor Brouardel), Botany (Professor Baillon), and Teratology (Director, M. Dareste), Normal Histology (Director, M. Ch. Robin), Physiology (Professor Béclard), Experimental and Comparative Pathology (Professor Vulpian), Therapeutics (Professor Hayem), Pharmacology (Professor Regnault). There are also laboratories for instruction at several of the hospitals.

The course of study to be followed in each winter session is as follows. *First year*: Medical Chemistry, Physics, and Natural History—theoretical and practical. *Second year*: Anatomy, Histology, Physiology, Medicine, and Surgery, with practical instruction in Anatomy, Histology, and Physiology. *Third year*: Anatomy, Histology, Pathological Anatomy, Physiology, Medicine, Surgery, Operative Surgery, *Materia Medica* and Therapeutics, Pharmacology, and Medical and Surgical hospital practice; practical work in hospital, Anatomy, Histology, and Physiology. *Fourth year*: Medicine, Surgery, Pathological Anatomy, general Pathology, and Therapeutics, Experimental Pathology, Practical Surgery, Hygiene, Forensic Medicine, History of Medicine and Surgery, and Medical, Surgical, Obstetric, and special hospital practice, with Practical instruction in Hospital work, Operative Surgery, and Pathological Anatomy.

Attached to the Faculty of Medicine are the Botanical Gardens and Museum of Natural History; the Orfila Museum of Anatomy and Zoology; at the *École de Médecine*; the Depuytren Museum of Pathological Anatomy, in the *École Pratique*; and the Library.

The prizes of the Faculty of Medicine are the following. The Corvisart prize, a gold medal of the value of 400 francs (£16) is offered for competition to all pupils of the Faculty who have also entered to one of the internal clinics. The subject is some question in medicine, the answer to which must be derived exclusively from the facts observed in hospital practice. The Montyon prize, consisting of 700 francs (£28), is awarded to the author of the best essay on the prevalent diseases of the preceding year, their characters, symptoms, and treatment.

The Barbier prize of 2,000 francs (£80) is offered annually to the inventor of an operation, or of instruments, bandages, &c., of general utility, and superior to anything of the kind that has been already in use. The Chateaufillard prize, also of 2,000 francs, is awarded yearly to the author of the best work on the medical sciences, printed between January 1 and December 31 of the preceding year. The works sent for competition must be in French. Graduation theses are admitted. An annual sum of 1,000 francs (£40) is awarded, under the will of the late Baron de Trémont, to a meritorious but poor student. An annual revenue of 3,000 francs, bequeathed by Madame de Barkow, is applied to a similar purpose in the superior educational establishments in Paris. The Lacaze prize of 10,000 francs (£400) is offered biennially for the best essay on phthisis or on typhoid fever—the subjects being taken alternately. After the examination of the theses, the Faculty names to the Minister of Public Instruction the candidates worthy of special distinction, in the form of silver medals, bronze medals, and honourable mention. Bursaries of the value of 1,200 francs are awarded after competition. Each bursary is tenable for one year; and the holder, if desirous of its renewal, must again compete. Candidates must be natives of France, at least eighteen years of age.

THE COLLEGE OF FRANCE.

In this institution, the following courses of instruction on sciences allied to medicine are given, viz., Experimental Medicine, by Dr. Brown-Séquard; General Anatomy, by M. Ranvier; Natural History of Organised Bodies, by M. Marey; Comparative Embryogeny, by M. Balbiani; Organic Chemistry, by M. Berthelot; Mineral Chemistry, by M. Schützenberger; Physics, by M. Mascart; Natural History of Inorganic Bodies, by M. Fouqué; General Physics, by M. Bertrand. The Histological Laboratory is under the direction of M. Ranvier and M. Malassez, and is specially intended for the use of persons desirous of making original researches. The Physiological Laboratory, directed by Professor Marey and M. François-Franck, is open to persons who enter their names for the purpose with the secretary of the Faculty of Sciences, and who have a sufficient knowledge of physiology to enable them to undertake experimental research. The researches may have reference to any department of physiology; but special attention is paid in this laboratory to the phenomena of circulation and motion, and their registration by suitable apparatus.

FREE MEDICAL INSTRUCTION.

In addition to the professors in the Faculty of Medicine, there are a number of lecturers whose instruction is recognised.

THE HOSPITALS OF PARIS.

Pupils of the Faculty of Medicine in Paris attend, without payment, the practice of any of the hospitals which they may select. The visits of the physicians and surgeons are generally made at an early hour—8 or 9 A.M. The following is a list of these institutions:

Hôtel Dieu, Parvis Notre Dame.—530 beds. *Physicians*: Drs. G. Sée, Hérard, Moutard-Martin, Empis, Gallard, and Vulpian. *Surgeons*: MM. Richet, Le Fort, and Panas. The hospital possesses laboratories for histology, chemistry, and physiology; also a library for the use of the *internes*.

Hôpital de la Charité, 47 Rue Jacob.—504 beds. *Physicians*: Drs. Hardy, Laboulbène, Desnos, Bernutz (Obstetric), Peter, and Féréol; *Surgeons*: M. Gosselin and Desprès. The library of this hospital contains a large number of works in anatomy, physiology, medicine, and surgery, including numerous theses.

Hôpital de la Pitié, 1 Rue Lacépède.—709 beds. *Physicians*: Drs. Lancereaux, Dumontpallier, La-sèque, Brouardel, Cornil, and Audhoui; *Surgeons*: MM. Verneuil and Polaillon.

Hôpital Lariboisière, 2 Rue Ambroise Paré.—705 beds. *Physicians*: Drs. Jaccoud, Bouchard, C. Paul, Proust, Siredey, and Dugué; *Surgeons*: MM. Duplay (Diseases of the Eye) and B. Anger. *Obstetric Physician*: M. Pinard. Besides the ordinary clinical instruction, instruction is also given in ophthalmic surgery and diseases of the larynx.

Hôpital Saint-Antoine, 184 Rue de Faubourg Saint-Antoine.—647 beds. *Physicians*: Drs. Mesnet, Dujardin-Beaumetz, Hayem, d'Heilly, Dieulafoy, Hallopeau, and Gourand; *Surgeons*: MM. Périer and Delens.

Hôpital Necker, 151 Rue de Sèvres.—418 beds. *Physicians*: Drs. Potain, Blachez, Rigal, and Gran-cher; *Surgeons*: MM. Trélat and Guyon. The Civiale museum, containing numerous calculi and specimens of diseases of the urinary organs, is attached to the hospital.

Hôpital Beaujon, 208 Faubourg Saint-Honoré.—422 beds. *Physicians*: Drs. Millard, Guyot, Gombault, and Féréol; *Surgeons*: MM. Tillaux and Léon Labbé. The hospital possesses a library containing 200 volumes, and a large number of theses.

Hôpital Cochin, 17 Faubourg Saint-Jacques.—249 beds. *Physician*: Dr. Bucquoy; *Surgeons*: MM. Th. Anger and Marchand; *Obstetric Surgeon*: M. Lucas-Championnière. An obstetric department is attached to this hospital; but only a limited number of students are admitted to the morning visit.

Hôpital Laennec, 42 Rue de Sèvres.—580 beds. *Physicians*: Drs. Ball, Damaschino, Ferrand, and Legroux; *Surgeon*: M. Nicaise.

Hôpital Bichet, Boulevard Ney. *Physicians*: Drs. Gérin-Roze and Gouguenheim; *Surgeon*: M. Terrier.

Hospice de la Salpêtrière, Boulevard de l'Hôpital.—3069 beds for old persons, and 662 for female lunatics. *Physicians*: Drs. Charcot and Luys; *Surgeon*: M. Terrillon; *Physicians to the Lunatic Department*: Drs. Legrand du Saulle, Moreau, and A. Voisin. *Assistant-Physician*: Dr. Charpentès. There is a medical library, founded and supported by the *internes*; it contains more than 1,500 volumes. M. Charcot, one of the physicians, gives a course of instruction on diseases of the nervous system; and MM. Luys and Voisin give courses of mental pathology.

Hospice de Bicêtre.—1,794 beds for old persons, and 540 for male lunatics. There is also a small eclectic ward of twelve beds. *Physician*: Dr. Debouve; *Surgeon*: M. Gillette; *Physicians to the Lunatic Department*: Drs. Falret, J. Voisin, and Bourneville; *Assistant-Physician*: M. Deny. The library, which was founded in 1865, contains about 3,000 volumes.

Hôpital des Enfants Malades, 149 Rue de Sèvres.—18 beds. *Physicians*: Drs. Bouchut, Labric, Simon, and Descroizelles; *Surgeon*: M. de Saint-Germain. Here are wards for acute and chronic diseases, nail-pox, and diseases of the eye.

Hôpital Trousseau, 89 Rue de Charenton.—427 beds. *Physicians*: Drs. Bergeron, Triboulet, Cadet de Gassicourt; *Surgeon*: M. Lannelongue.

Hôpital Saint-Louis, 40 Rue Bichart.—823 beds; of which 637 are occupied with cases of skin-disease, 28 with obstetric cases, and the rest with surgical cases. *Physicians*: Drs. Lailier, Vidal, Guibout, Besnier, Fournier, and Olivier; *Surgeons*: MM. Péan and Le Dentu. General medicine is not taught in this hospital, but there are ample means for the special study of diseases of the skin, on which courses of theoretical and practical lectures are delivered. A museum containing several hundred models and drawings, illustrating diseases of the skin; to which is added M. Fournier's collection of illustrations of venereal diseases. The hospital is also rich in surgical cases.

Hôpital du Midi, 111 Boulevard du Port-Royal.—336 beds, devoted exclusively to the reception of cases of venereal disease. *Physicians*: Drs. Simonet and Mauriac; *Surgeon*: M. Horteloup.

Hôpital de Lourcine, 111 Rue de Lourcine.—243 beds. *Physicians*: Drs. Martineau and Rathery; *Surgeon*: M. Berger. Students are admitted to the hospital by special ticket.

Hôpital Tenon, Rue de la Chine.—635 beds. Besides these, 190 beds can be added in cases of epidemics, &c. *Physicians*: Drs. Straus, Rendu, Sevestre, Huchard, Tenneson, and Landouzy. *Surgeons*: MM. Lucas, Championnière, and Gillette.

Maison d'Accouchement, 121 Boulevard du Port-Royal.—316 beds. *Physician*: Dr. Hervieux; *Surgeon*: M. Tarnier; *Assistant-Surgeon*: M. Marchand. The hospital is employed exclusively for the education of midwives, and is not open to students of medicine. Attached to the hospital is a school for midwives.

Clinique d'Accouchement, 89 Rue d'Assas. *Surgeon*: M. Depaul.

HOSPITAL APPOINTMENTS IN PARIS: CONCOURS.

The medical staff of each hospital in Paris consists of—1. Physicians and Surgeons; 2. Prosectors; 3. *Internes* and *Externes* in Medicine and in Surgery; 4. *Pharmacians*; 5. *Internes* in Pharmacy.

All the appointments in the hospitals of Paris are obtained by *concours*; and, when vacant, are eagerly competed for.

Each medical service is under the direction of a physician, and comprises also an *interne* and three or four *externes*. The organisation of the surgical departments is similar; but the number of pupils is greater, and there are generally two or three *internes* and five or six *externes*.

The chief of the medical staff, physician or surgeon, receives annually a sum of 1,200 francs (£48) in the central hospitals, and 1,500 francs (£60) in the more distant ones. The physicians retire from hospital duty at the age of 65, and the surgeons at 63. When first nominated, they have to attend the consultations at the central bureau, and to do duty for all of the hospital physicians and surgeons that may be absent. As vacancies occur in the hospitals, they receive appointments in the order of their nomination.

The *internes* receive 600 francs for the first year, 700 francs the second year, 800 francs the third year, and 1,000 francs the fourth year. Some of them are also provided with lodging, fire, and light; others receive 400 francs yearly in lieu of lodging.

The *interne* is the most direct assistant of the hos-

pital physician or surgeon; he accompanies him in his morning visit, and himself visits the patients in the evening. The *internes* remain on duty in turn to attend to urgent accidents and cases of illness.

In November, the *internes* are invited to compete for prizes. To those of the first and second years are offered a silver medal, books, and two certificates of honour. Those of the third and fourth years compete for a gold medal, a silver medal, and two certificates of honour. The successful candidate for the gold medal is entitled to two additional years of *internat*.

Those candidates who are placed in the first list at the *concours*, but do not succeed in getting appointments, are termed provisional *internes*, and fill the places of those who are absent. They have, however, to compete again at the end of the year, if they desire to receive appointments.

The *externes*, who are appointed for three years, have to take records of cases, either alone or under the direction of the *internes*, to assist the latter in dressing difficult cases, and to dress the minor cases. The *externes* at the central hospitals are not paid; at those more distant from the centre of the city, they receive 300 *francs* yearly; at others more distant, one *franc* daily; at the Maison de Santé, 300 *francs* yearly, and 300 *francs* for expenses; at the Tenon Hospital, 50 *francs* monthly.

The *concours* for the *externat* generally commences early in October, and continues until the end of December. Candidates must not be under 18, nor above 26 years of age. They must produce—1. A register of birth; 2. A certificate of vaccination; 3. A certificate of good conduct signed by the mayor of the commune in which the candidate is domiciled; 4. A certificate of at least one inscription in the Faculty of Medicine. The examination consists in—1. An oral description in some subject in descriptive anatomy; 2. A similar description of some elementary subject in pathology or minor surgery. For each five minutes are allowed, after five minutes of reflection. The maximum number of marks that can be gained by a candidate is 20 for each examination. The examination is conducted by four physicians and three surgeons of the central bureau, generally from those most recently appointed.

The *concours* for the *internat* takes place nearly at the same time as that for the *externat*. Candidates must not be more than 28 years old, and must produce certificate of having performed the duties of *externe*, at least from the first day of the preceding January, without interruption (unless this have been unavoidable); also certificates from the physicians and surgeons and the directors of the hospitals in which they have performed the duties of *externe*, testifying to their punctuality, obedience, and good conduct. The examination commences with a written essay on some subject in anatomy and medical or surgical pathology, for which two hours are allowed. This is followed by an oral examination in the same subjects; ten minutes being allowed for each answer after ten minutes of consideration. The maximum of marks obtainable for the written examination is 30; for the oral 20. After this the candidates are classified.

At the end of the *concours*, the candidates are classified according to the number of marks; and the 35 or 40 first on the list are nominated *internes*.

The first four candidates on the list are the successful candidates for the prize for *externes*, the examination for which is the same as that for the

internat. The first receives a case of instruments of the value of 300 *francs*, and has, during his first year, the sum of 800 *francs* in addition to the payment which he receives in common with the other *internes*. The first and second candidates are also presented with books.

The prizes offered to the *internes* are competed for in the beginning of November. The examination consists in—1. A written composition, for which two hours are allowed, bearing on anatomy, physiology, and pathology; 2. An oral description of some subject in external pathology; 3. A similar description of some subject in internal pathology (for each of these ten minutes are allowed); 4. *Internes* of the third and fourth years must also have sent in, before August 15, an original essay on some subject selected by them; this is generally based on observations made in the hospital.

The Civile prize, of the value of 1,000 *francs*, is given every second year to the best essay by an *interne* on duty on some point in the pathology of the genito-urinary passages.

The *concours* at the Bureau central for the office of physician consists of five examinations. 1. The candidate gives a lecture for a quarter of an hour on a patient, for whose examination ten minutes are allowed. 2. A lecture of twenty minutes' duration, after twenty minutes' reflection, on some subject in medicine. 3. A written consultation on a medical case; ten minutes being allowed for examining the patient, and three-fourths of an hour for writing out the consultation. To each of these examinations a maximum of 20 marks is allotted. During these three examinations, a process of elimination takes place, so that at last there remain five candidates for one place, eight for two, and ten for three places. These are then further subjected to the following tests: 1. A written composition for which three hours are allowed, on some subject in medicine, which must comprise a question in pathological anatomy; 2. A lecture of thirty minutes' duration on two patients, twenty minutes being allowed for examining them.

In the *concours* for the office of surgeon, the examinations are nearly the same; there is, in addition, an examination in operative surgery, and the candidate has to lecture on one subject instead of two.

MEDICAL SERVICE IN THE FRENCH ARMY.

Candidates for admission to the French medical service are chosen yearly by *concours*, in numbers proportioned to the demand of the service. They are distributed, at their own option and convenience, among the towns which possess military hospitals or wards for soldiers in civil hospitals, and have also a school of medicine; viz., Paris, Lille, Nancy, Lyons, Marseilles, Montpellier, Toulouse, Bordeaux, Nantes, Rennes, and Algiers; and *concours* are held at each of the places, for admission of pupils in medicine and pupils in pharmacy.

The following classes of candidates are admitted as pupils in medicine: 1. Students having eight, twelve, or sixteen inscriptions for the doctorate, and having passed the corresponding examinations; 2. Doctors in medicine. They must be born or naturalised Frenchmen, and must not have exceeded, on January 1st of the year in which the *concours* takes place, 23 years of age in the case of students with eight inscriptions, 24 years in the case of students with twelve, 25 years in the case of students with sixteen inscriptions, and 26 years in the case of

doctors of medicine. They must be certified as fit for service by an army medical officer holding the rank of surgeon-major or a higher rank, and, if necessary, their fitness may be verified by an examining board; and they must engage on honour to serve at least ten years from the date of appointment of *aide-major* of the second class. Candidates must make application for admission on a form to be obtained at the offices of the military intendants resident in the places above mentioned.

The subjects of the examinations at the *concours* are as follows. For candidates with eight inscriptions: 1. A written composition on a question of physiology; 2. Questions on descriptive anatomy and physiology. For candidates with twelve inscriptions: 1. A composition on a subject in general pathology; 2. Questions in internal and external pathology; 3. Questions on anatomy and psychology. For candidates with sixteen inscriptions: 1. A written composition on a question in medical pathology and therapeutics; 2. Questions on external pathology, and operative surgery; 3. Questions on internal pathology, hygiene, and therapeutics. For doctors in medicine: 1. A written composition on a subject in general pathology; 2. An oral examination on regional anatomy and its applications to medicine and surgery; 3. Clinical examination of two patients. The examinations are conducted by a board, consisting of a medical inspector as president, a professor, and an *agrégé* professor in the School of Military Medicine and Pharmacy, and the professor of applied chemistry in the school, together with a *pharmacien-major* of the first class. Three hours are allowed for writing the essay; and each series of questions occupies twenty minutes.

Having passed a satisfactory examination, the candidates are attached to the military hospitals or wards in the town, and are subject to certain disciplinary rules with the object of regulating their studies. They do not wear uniform. Each candidate is allowed, for two years at most, from the time of his thirteenth inscription a sum of 1,200 *francs* (48*l.*) *per annum*, to pay for maintenance, books, and instruments. Those alone who have been bursars in the military Prytaneum are allowed, from the time of their admission as pupils in the military medical service, a monthly allowance of 1,200 *francs* in Paris, 1,000 *francs* in Lyons and Marseilles, and 800 *francs* in the other towns.

In case of rejection, the fees for admission to a second examination must be paid by the candidate, and no one is admitted after a second rejection. Permission to study during an additional year is granted only when the pupil has been prevented by illness during at least two months in the year from following his studies.

Doctors of Medicine who have passed the required examinations are admitted to the School of Military Medicine and Pharmacy, Val-de-Grâce, with the title of *médecin stagiaire*. The instruction given to them in the school is essentially practical, and has special reference to the requirements of military service. They are allowed 2,800 *francs* (112*l.*) yearly, and wear uniform. They attend the school of Val-de-Grâce in Paris during at least eight months, and, if found qualified on examination, receive the rank of *aide-major* of the second class.

NAVAL MEDICAL SCHOOLS.

For the purpose of training medical officers for the Navy there are three schools—Brest, Rochefort, and Toulon.

GERMANY.

GRADUATION IN MEDICINE.

IN the German Empire there are twenty Universities which possess a Medical Faculty and grant degrees in Medicine; viz., those of Berlin, Bonn, Breslau, Erlangen, Freiburg im Breisgau, Giessen, Göttingen, Greifswald, Halle, Heidelberg, Jena, Kiel, Königsberg, Leipzig, Marburg, Munich, Rostock, Strasburg, Tübingen, and Würzburg.

No one can legally practise Medicine in this empire unless he have passed the Staats-Examen Board. The law forbids anyone to call himself *Arzt* (Physician) unless he have passed the State Board; or Doctor, unless he have passed the examinations at some University, and thereby acquired the degree. The doctor who has not passed the State Board is not a licensed physician, and may hold no appointment; and if he practise, he has no power or right to insist on payment of his services. The practitioner who is neither doctor nor physician, if any mishap occur from his ignorance, is punished not only by fine, but by imprisonment for a period varying from six months to ten years.

The expenses of passing the State Board are less than half of those for the Faculty of an University, and the examination is more exclusively practical; hence it is selected by the poorer students who seek only a rural practice. The majority of students pass both the University and State examinations, and this is especially necessary for those who aspire to any medical office.

No medical diploma, either from an University or otherwise, can be obtained in Germany without a gymnasial certificate, to obtain which an examination must be passed at a German gymnasium (public school) in Greek, Latin, at least one Modern Language besides German, Logic, the Physical Sciences, and Mathematics. A candidate who cannot present this, or an equivalent certificate, must pass a preliminary examination in those subjects.

The number and character of professional chairs in the Medical Faculties vary greatly in the different Universities; but in all we find three classes of teachers, viz., professors, extraordinary or assistant professors, and *privat-docents*.

The professors are appointed for life, and at the end of thirty years' service can retire on a pension; they receive a fixed salary from the State or University—a part of the revenue derived by the medical faculty from certain fees, and their lecture fees from the students. The fixed salary is occasionally increased, according to the success and reputation of the professor. Any doctor in medicine may be a candidate for a vacant chair, the selection being made by the Minister of Public Instruction from a list of names recommended by the Faculty.

The extraordinary or assistant professors are appointed in like manner from among the *privat-docents*. As a rule, their compensation comes only from students' fees, but occasionally a small fixed salary is allowed.

There are no independent schools in Germany. There is, however, little objection to free, or, as it is sometimes called, 'extramural teaching,' and hence young men of ability can establish themselves as private teachers, demonstrators, &c., in the immediate vicinity of the Universities, relying on their own talents and tact to secure pupils. These are

the *privat-docents*, much of whose teaching consists in giving short courses, of from six to eight weeks' duration, on special subjects. The position of *privat-docent* is accessible to all doctors of medicine, and the number is unlimited. Their compensation is from students' fees, and they may not underbid the regular professor. At some Universities they are furnished with rooms, and given a share of the clinics; at others, they receive little or no assistance. The *privat-docents* are understood to be in training for professorships, and, if they show marked ability as teachers or as investigators, their promotion may be very rapid.

The course of study at the German Universities varies according to the requirements for the particular medical degree, but in no case is it less than three years. At some, the course extends over four years. The following lectures are the least which will be accepted by any of the University Faculties, and may be taken in whatever order the student may wish. The courses occupy nine-and-a-half months in each year. For one year: Chemistry, six hours weekly; Physics, four hours weekly; Zoology and Comparative Anatomy, three hours weekly; Botany, three hours weekly; Mineralogy and Geology, two hours weekly; Anatomy, Histology, and Preparation of Specimens, ten hours weekly; Physiology and Laboratory Work, eight hours weekly; General Pathology, Pathological Anatomy, and Practical Work, six hours weekly; Pharmacology and Toxicology, two hours weekly. For two years: Special Pathology and Medical Clinic at Hospital, ten hours weekly; General and Special Surgery, Hospital Clinics, and Operating, ten hours weekly for one year, or five hours weekly for two years. This course may not be taken at the same time as the previous medical course. Obstetrics and Gynecology, with Clinics, three hours weekly for one year; Eye and Ear Clinics, Use of Ophthalmoscope, Operations, four hours weekly for one year; Forensic Medicine, two hours weekly, for one year.

The professors receive fixed salaries, varying from 120*l.* to 480*l.* annually, and increased every ten years by the addition of from 20*l.* to 50*l.* The students' fees for the entire course vary in different schools from 36*l.* to 52*l.*

REGULATIONS FOR THE GERMAN STAATS-EXAMEN.

The examination for the licence to practise as a Physician, Surgeon, and Accoucheur, in any part of the German Empire, may be either passed before the Medical Examination Commission at Berlin, or before a Medical Examination Committee at any German University. The Examination Committees, consisting of scientifically educated professional men in all branches of the Faculty, are appointed every year by the authorised Central Board, on whose decision it depends whether the President of the Commission shall be selected from the examiners or not. The notice for examination before the superior Examination Committee must be deposited with the Minister of Medical Affairs at Berlin, and the notice for examination before an Academic Examination Committee with the acting Curator of the University chosen, or, in default of such functionary, with the nearest superior Court of the Examination Commission. To the notice for examination must be attached: 1. A certificate of having completed a course of study at a gymnasium; 2. A certificate of the full

course of medical study at an University; 3. A certificate of proficiency at the Natural Science Examination of some German University; 4. Proof that the candidate has taken part and had practice for at least two terms both in Clinical Surgery and in Clinical Medicine, and in Clinical Midwifery has attended at least four separate labours; 5. A testimonial from a public vaccinator, or some other recognised medical man, that the candidate has acquired the necessary dexterity in Vaccination.

The examinations commence every year in November, and are continued beyond the middle of July in the following year.

Candidates who have not reported themselves at the latest by the end of the year, and who have not deposited the certificates required, are not admitted to examination before the November following. Exceptions to this rule can only be made under very special circumstances.

The examination is divided into five parts, viz.: 1. Anatomical, Physiological, and Pathological; 2. Surgical and Ophthalmic; 3. Medical; 4. Gynecological; 5. *Privat voce*. All candidates, without exception, must pass these examinations in the above order.

In the first portion, the candidate has to write essays on the various subjects, and also to demonstrate on the dead body, and reply to questions put to him.

In the second portion, the candidate has to undergo a clinical and a technical test. The clinical part is conducted in the surgical department of a large hospital, or in the clinic of an University, and usually lasts from seven to nine days, the candidate during this period taking charge of several patients, under the supervision of one of the examiners. During this period, also, the candidate may be required to satisfy the examiners that he can operate on the dead body, and is always required to give his diagnosis in an ophthalmic case.

The third portion of the examination is devoted to medicine, and is purely clinical. The candidate is examined in a hospital or in a clinic of an University, and is required to write prescriptions, and to give his opinion as to the doses of certain drugs used in certain cases of sickness.

The fourth portion consists in an examination conducted in the Charity Lying-in Hospital at Berlin, or in the Lying-in Hospital of an University. The candidate has to examine cases in the presence of an examiner, and to give the diagnosis, prognosis, and treatment. He is also required to attend a case of labour in the presence of an examiner, and to write down his opinion afterwards, stating the exact presentation, &c. He is also required to undertake the treatment of cases during seven days, under the superintendence of an examiner.

The fifth portion, the *privat voce* examination, is conducted publicly, under the superintendence of the President of the Examination Commission, by three Commissioners. To this examination, only those candidates are admitted who have satisfactorily passed the previous portions. This examination includes General and Special Pathology, Therapeutics, Surgery, Midwifery, Pharmacy, and Hygiene. Any candidate who fails to pass these five portions of the examination twice will not be readmitted to examination.

The fee for the examination is 204 marks (or 10*l.* 4*s.* English money), viz.:

	£	s.	d.	Marks.
1st portion	2	6	0	= 46
2nd „	3	3	0	= 63
3rd „	1	14	0	= 34
4th „	1	4	0	= 24
5th „	0	6	0	= 6
Expenses.....	1	11	0	= 31
	10	4	0	204

The examinations are always conducted in the German language.

UNIVERSITY OF BERLIN.*

THE conditions for promotion to the Doctorate of Medicine, Surgery, and Midwifery, at the Royal Frederick William University at Berlin, are as follows.

1. Candidates must have studied medicine in at least four years in one or more Universities regularly constituted. Universities and Medical Colleges abroad are deemed equivalent to the Universities in Germany. 2. Candidates under 30 years of age who have not matriculated at this University, or who have left previously to their application for promotion, must matriculate again. This can be done free of cost. Both these and matriculated students of this University must, before making application for promotion, take out a preliminary certificate of having left, and will not receive the real certificate until after promotion. 3. The candidate has to make application to the Dean, handing in at the same time the documents mentioned under 1 and 2. He has then to pass a written and verbal preliminary examination before the Dean, before being admitted to the *examen rigorosum* before the Faculty. The verbal examination is generally conducted in German or Latin, and extends to all branches of theoretical and practical medicine. At the written examination, an *ex tempore* essay must be written, without any assistance, in a given time. 4. After the preliminary examination, the Dean lays before the Faculty the documents having reference to the personality and the course of studies of the candidate, the judgment respecting the preliminary examination, and the essay composed thereat. Should that body decide for admission, the Dean will appoint as early a time as possible for the *examen rigorosum*. 5. The *examen rigorosum* takes place before six members of the Faculty, is verbal only, and is concluded at one sitting, each of the examiners examining the candidate for a quarter of an hour. No branch of theoretical and practical medicine and surgery is excluded. It is generally held in German, but, if necessary, in Latin. From this examination no candidate can be exempted. If he is rejected, six months must elapse before re-admission. 6. After this, the candidate must present a German or Latin dissertation. The members of the Faculty are ready to advise the candidate as to the choice of a subject for his essay; but the essay must be entirely original; and the candidate must declare on oath in writing that he has composed it entirely himself. If the manuscript be pronounced good by the Faculty, the candidate will have to get printed, at his own expense (about 85 marks), by a certain printer, a prescribed number of copies. It must consist of at least two quires, and give evidence of a good scientific

knowledge. To this must be annexed a brief *curriculum vite*, and at least three theses approved by the Dean. 7. After this, follows the public discussion in the Aula of the University. The discussion has reference both to the dissertation and to the theses. Next, the opponents chosen by the candidate, who must be at least three in number, divide on the subject. Their names must appear on the title-page of the dissertation. Afterwards, anyone belonging to the University is at liberty (*à volonté*) to oppose. Both the candidates and the opponents must be dressed in black. The discussion is either in German or in Latin. The Minister of Education has the privilege of allowing the use of another language, and also of dispensing with the discussion. 8. After the discussion is ended the oath-taking and promotion of the candidate as a Doctor of Medicine, Surgery, and Midwifery takes place, conducted by the Dean or his representatives. After the ceremony of promotion is completed, the Dean delivers the diploma to the newly created doctor, who inscribes his name in the book of the Faculty. The expense of making out the diploma (15 marks) is borne by the candidate. A copy of it is fixed on the black board of the Faculty, and a certain number of copies are delivered to the Registrar of the University, for distribution. Promotion *in absentia* can on no account take place. 9. Four hundred and forty *reichsmarks* (221) must be paid to the Dean as fees for the Degree of Doctor in Medicine, of which 221 marks must be paid on application and are forfeited after the *examen rigorosum*, if the candidate be unsuccessful. The second portion (204 marks for the Faculty and 15 marks for the University library) may be paid either at the same time with the other or within the period within the *examen rigorosum* and the promotion. In addition to this, the candidate has to pay expenses of printing the dissertation and diploma (*vide* 6 and 8). 10. The shortest time in which the whole of the proceedings for obtaining a doctor's degree can be gone through is ten days. In this case, however, it is stipulated that the dissertation be delivered ready for printing to the Dean at the first application, and that the other business of the Faculty permits them to proceed at once to the examinations.

The Medical Faculty of this University consists of the following professors, with between forty and fifty *doctors* or private teachers. *Ordinary Professors*: W. Waldeyer, Anatomy; A. Bardeleben, Surgery, and Clinical Surgery; R. Virchow, Pathology; F. T. Frerichs, Medicine and Clinical Medicine; E. Du Bois-Reymond, Physiology; A. Hirsch, Medicine and Epidemiology; E. Leyden, Medicine and Clinical Medicine; E. von Bergmann, Surgery and Clinical Surgery; C. Schroder and A. Gusserow, Obstetrics and Gynecology; O. Liebreich, Materia Medica; C. Schweigger, Diseases of the Eye and Ophthalmic Clinic; C. Westphal, Psychology and Psychiatric Clinic. *Extraordinary Professors*: E. Hensch, Diseases of Children; F. Gurlt, Practical Surgery; C. Liman, Forensic Medicine; C. Skrzeczka, Hygiene and Medical Police; J. Meyer, Medicine; R. Hartmann, Anatomy; G. Lewin, Diseases of the Skin and Syphilis; H. Jacobson, Medicine; (vacant) Dental Surgery; H. Munk, Physiology; C. A. Ewald, Physical Diagnosis; A. Lucae, Aural Surgery; E. Salkowski, Chemistry; G. Fritsch, Physiology; O. Frantzel, Medicine; H. Senator, Diseases of Children; F. Busch, Surgery; H. Kronecker, Physiology; H. Fashbender, Gynæ-

* For much of the information in this and subsequent pages, we are indebted to Dr. Hardwicke's *Medical Education and Practice in all Parts of the World*.

cology; H. L. Schöler, Ophthalmic Surgery; J. Hirschberg, Ophthalmic Surgery; E. Küster, Surgery; A. Christiani, Physiology; M. Bernhardt, Medicine. The following professors also give instruction in subjects connected with medicine in the Philosophical Faculty. *Ordinary Professors*: S. Schwendener, Botany; H. Helmholtz, Physics; A. W. Hofmann, Chemistry; A. W. Eichler, Botany; F. Rudorff, Chemistry. *Extraordinary Professors*: A. Garcke, Botany; L. Kny, P. Ascherson, Botany; E. von Martens, Zoology; E. Sell, Chemistry; A. Pinner, Chemistry and Pharmacy; C. Liebermann, Chemistry; L. Wittmack, Botany; C. Jessen, Botany.

The institutions for Clinical Teaching connected with the University are—the University Polyclinic (Dr. Meyer); the Ophthalmic Polyclinic (Dr. Schweigger); the Aural Polyclinic (Dr. Lucae); the Obstetric Clinic (Dr. Schröder); the Institute for Practical Instruction in State Medicine (Dr. Liman); in the Charité Hospital, the Medical Clinic (Dr. Frerichs), the Clinic for Elementary Medical Instruction (Dr. Leyden), the Surgical Clinic (Dr. Bardeleben), the Ophthalmic Clinic (Dr. Schweigger), the Obstetric Clinic (Dr. Gusserow), the Gynecological Clinic (Dr. Schröder), the Clinics for Diseases of the Skin and Syphilis (Dr. Lewin), for Diseases of Children (Dr. Henoch), and for Diseases of the Mind and Nervous System (Dr. Westphal). The Pathological Institute is under the direction of Professor Virchow; the Physiological Laboratory under that of Professor Du Bois-Reymond; the Chemical Laboratory under that of Professor Hofmann; and the Pharmaceutical Laboratory under that of Professor O. Liebreich. The Pathological Institute—which owes its existence in its present form to Professor Virchow, and has served as a model for numerous similar institutions in Germany and elsewhere—is situated within the grounds of the Charité Hospital. It contains a lecture theatre, a room for demonstrations, a museum, a chemical laboratory, a histological laboratory, a suite of rooms for the *post mortem* examinations, private rooms for the professor and his assistants, while in the basement floor there are kept animals for experiment.

UNIVERSITY OF BONN.

A DEGREE in Medicine, Surgery, and Midwifery is granted only under the following conditions, viz.:

1. An examination in all branches of Medicine and Surgery of about three hours' duration in the German language; 2. A written scientific dissertation in German or Latin; 3. Public defence of the dissertation in German or Latin; 4. Fee for the examination and diploma, 360 marks (18L), which must be paid prior to examination.

The following are the Professors in the Medical Faculty of this University. *Ordinary Professors*: C. Binz, Materia Medica; F. Trendelenburg, Surgery; C. Köster, Pathology; A. de la Valette St. George, Anatomy and Histology; F. von Leydig, Comparative Anatomy; E. Flügel, Physiology; H. Rühle, Medicine; T. Samisch, Diseases of the Eye; G. Veit, Gynecology and Forensic Medicine. *Extraordinary Professors*: C. Finkelnburg, Mental Diseases; J. Doutrelepon, Surgery; C. von Mosengeil, Surgery; F. Obernier, Diseases of Children; H. Schnaiffhausen, Physiology; M. Nussbaum, Anatomy and Histology. Instruction is also given in the Philosophical Faculty—*Ordinary Professors*: R. Hert-

ing, Zoology; R. Clausius, Experimental Physics; E. Strassburger, Botany; and A. Kekulé, Chemistry. *Extraordinary Professor*: O. Wallach, Chemistry; F. Schmitz, Botany.

Connected with the University are medical, surgical, obstetric, and ophthalmic clinics; an anatomical theatre and museum, and physiological, pathological, pharmacological, and chemical institutes.

UNIVERSITY OF BRESLAU.

THE following Professors belong to the Medical Faculty of this University. *Ordinary Professors*: A. Biermer, Medicine; E. Ponfick, Pathology; H. Fischer, Surgery; R. Förster, Ophthalmic Surgery; H. Haser, Materia Medica and Therapeutics; C. Hasse, Anatomy; R. P. H. Heidenhain, Physiology; H. Fritsch, Obstetrics and Gynecology. *Extraordinary Professors*: L. Auerbach, Comparative Anatomy; H. Cohn, Ophthalmology; H. Friedberg, Forensic Medicine and Public Health; R. Gscheidlen, Physiology and Physiological Chemistry; I. Klopsch, Surgery; A. Neisser, Diseases of the Skin and Syphilis; H. Neumann, Physiological Medicine; E. Richter, Surgery; R. Voltolini, Diseases of the Ear; L. Hirt, Forensic Medicine and Hygiene; H. Sommerbrodt, Medicine; O. Berger, Medicine. Instruction is also given in the Philosophical Faculty on subjects connected with medicine by—*Ordinary Professors*: C. J. Löwig, Chemistry; H. R. Göppert, Pharmacology; A. Schneider, Zoology; O. E. Meyer, Experimental Physics; T. Poleck, Chemistry; F. Cohn, Botany. *Extraordinary Professors*: G. W. Körber, Botany; F. E. Dorn, Physics; V. von Richter, Chemistry.

The University possesses anatomical, physiological, pathological, pharmaceutical institutes, and clinics of medicine, surgery, obstetrics, ophthalmic surgery, syphilis and skin-diseases, and mental diseases.

UNIVERSITY OF ERLANGEN.

THE following are the regulations to be observed by candidates for the degree of Doctor of Medicine in this University.

1. Candidates for the degree of Doctor must announce their intention to the Dean of the Faculty of Medicine and present the following documents: *a*. Evidence of having gone through the curriculum in a German gymnasium, or proof of equivalent general education; *b*. Proof of having studied medicine in one of the German Universities, or in a corresponding medical school abroad, during at least three years; *c*. A thesis, composed by the candidate, on some subject in medicine or natural science, with a written declaration, on word of honour, that the work is absolutely the candidate's own. 2. The dissertation is examined by a referee, appointed by the Dean; and, if it be judged to be of sufficient merit, the candidate is admitted to an oral examination, which is conducted in the German language. It may take place in two forms; *a*. As a colloquium, in the case of those who have passed an examination in medicine before a German examining board; *b*. As an extended examination on all departments of medical science, in the case of those who have not passed such an examination. The colloquium takes place under the presidency of the Dean before three delegates of the Faculty; the detailed examination is conducted by the Dean and

four other members of the Faculty. Both the colloquium and the latter examination are held in public, and in German. 3. After the conclusion of the oral examination, the examiners decide on the result. If the decision be favourable, the degree of Doctor is at once conferred, the fact being communicated to the candidate by the Dean, and his diploma issued to him. 4. The candidate, if his dissertation be approved, must have it printed at his own expense. At the back of the title-page it must be stated that the dissertation is printed with the consent of the Faculty; and the name of the reporter (*referent*) must be given. 5. The candidate must pay a fee of 300 marks (equal to about 15*l.* 10*s.*) for the granting of the Doctor's degree, and must also deliver 150 copies of his dissertation to the Faculty. 6. If the candidate fail to pass the examination, half of the fee is returned to him.

The Medical Faculty of this University consists of the following professors, with teachers. *Ordinary Professors*: J. von Gerlach, Anatomy; F. A. Zenker, Pathology; W. Heineke, Surgery; I. Rosenthal, Physiology; W. O. Leube, Practice of Medicine and Clinics; H. Sattler, Ophthalmology; P. Zweifel, Midwifery. *Extraordinary Professors*: F. W. Hagen, Psychological Medicine; W. Filehne, Materia Medica and Therapeutics; F. Penzoldt, Medicine. Instruction in subjects connected with medicine is also given in the Philosophical Faculty. *Ordinary Professors*: E. Lommel, Experimental Physics; Fischer, Chemistry; M. Reess, Botany; E. Selenka, Comparative Anatomy; A. Hilger, Pharmacy and Chemistry.

In connection with the University are the following institutions: the University Hospital, with medical, surgical, obstetric, psychiatric, and ophthalmic clinics; an anatomical, a physiological, and a pathological institute.

UNIVERSITY OF FREIBURG.

THE Faculty of Medicine here grants a degree in Medicine, Surgery, and Midwifery. The following are the conditions to be observed before being admitted to examination.

1. A certificate must be produced showing the respectability of the candidate, and also the amount of his education, both prior to and since his admission as a medical student. 2. A scientific dissertation must be handed to the Dean, written in German or Latin. 3. A fee of 300 marks (15*l.*) must be paid to the Chief Beadle. In case of rejection, the candidate will receive half the fee back; and when he presents himself for examination again, he pays only that amount, viz., 150 marks. Should these conditions be complied with, and the thesis be deemed satisfactory, the candidate will be admitted to a *viva voce* examination in the German language.

The following are the subjects for examination: Anatomy, Materia Medica, and Toxicology, Physiology, Medicine, Surgery, Pathological Anatomy, Midwifery, Ophthalmology.

If a candidate have already passed an examination as Physician before a German commission of examiners, the number of subjects may be reduced.

If the examination be passed, one of the following grades of honour is conferred: 1. *Summa cum laude*; 2. *Insigni cum laude*; 3. *Cum laude*.

The Medical Faculty of the University is thus constituted. *Ordinary Professors*: A. Ecker, Human and Comparative Anatomy; H. Strasser, Anatomy;

L. von Babo, Chemistry and Physiology; R. Maier, Pathological Anatomy and State Medicine; A. Hegar, Midwifery; F. Hildebrand, Botany; W. Manz, Ophthalmic Surgery; Ch. Bäumlér, Materia Medica and Medicine; F. F. L. Thomas, Materia Medica and Medicine; (vacant) Surgery; E. Baumann, Physiology. *Extraordinary Professors*: A. Schinzinger, Surgery; J. Latschenberger, Physiological Chemistry and Practical Physiology; R. Wiedersheim, Anatomy and Histology; A. Röhrig, Pharmacology; J. von Kries, Physiology; P. Langerhans; J. von Rotteck; H. Strosser; E. Bostron. In the Philosophical Faculty, lectures on subjects connected with medicine are given by Professors A. Weismann in Zoology, A. Claus in Chemistry, and E. Warburg in Experimental Physics.

The University library contains 250,000 volumes. There are a chemical laboratory and institutions for the practical study of anatomy, pathology, physiology, &c.; and medical, surgical, obstetric, and ophthalmic clinics.

UNIVERSITY OF GIESSEN.

THE Faculty of Medicine grants a degree in Medicine, Surgery, and Obstetrics, which can only be obtained on the following conditions.

1. A *curriculum vitae*, written by himself, must be sent to the Faculty by the candidate; also a certificate of gymnasial maturity, and a certificate of at least three years' medical and surgical study at a University or a Medical Institution. If the candidate be not a native of Germany, he must produce a certificate of sufficient preliminary studies from his own country in place of the gymnasial maturity certificate (a degree in arts or certificate of having passed the matriculation examination for medical students at any recognised university is sufficient). 2. The candidate must present a dissertation on some medical subject, written in German or Latin, together with a declaration in his own handwriting that he has composed the dissertation himself without help from others, except what may be stated by him. In place of the dissertation, a previously published treatise or literary production may be substituted. 3. In case of admission by the Faculty, the whole of the documents are laid before the Rector and the Chancellor, who may object to the admission if they be not satisfied. 4. If no objection be made by the Rector and Chancellor, and the candidate have paid the promotion fees to the Questor of the University, the dissertation is to be judged by a Referee. If the Referee declare the work to be unsatisfactory, the candidate is rejected. In the contrary case, he is admitted to *viva voce* examination before the Faculty. 5. The *viva voce* examination takes place in the German language, and lasts two or three hours. It is held in public, except when the candidate is already advanced in age, or in a few other cases, when the Faculty decree that it may be held in private. 6. The verbal examination embraces the following subjects: Anatomy, Physiology, Pathological Anatomy, Histology, Pathology, and Medicine, Materia Medica and Therapeutics (including Toxicology), Surgical Pathology and Surgery, Forensic Medicine, Obstetrics. 7. Immediately after the conclusion of the examination, the result is decided on by the President and examiners in a private sitting, and at once made known to the candidate by the President. The examination is not passed when two or more members of the Faculty declare the re-

sult of the examination to have been unsatisfactory. The kind of degree to be granted is decided by a majority of votes—whether *cum laude*, *magna cum laude*, or *summa cum laude*. 8. The approved dissertation must be printed and published, and the appointed number be presented to the Faculty before the promotion takes place. Exception is made when the candidate has already handed in a printed treatise. 9. Promotions to the M.D. *in absentia* do not take place at this University, except in the case of degrees granted *honoris causa* by the unanimous decision of the Faculty, to men who have rendered some great service to the science of medicine. 10. The fee for promotion is 420 marks (22*l.*), which must be paid to the Quæstor of the University at the time of the petition for admission. If the dissertation be not considered satisfactory, and the candidate in consequence be not admitted to the verbal examination, 100 marks are retained by the Faculty. If the verbal examination be not passed, half the fees are forfeited; but, if the candidate present himself again, he has only to pay half the fees.

The following are the professors in the Faculty of Medicine in this University. *Ordinary Professors*: H. Bose, Surgery; J. Wilbrand, Forensic Medicine and Hygiene; C. Eckhard, Physiology and Toxicology; F. Riegel, Medicine; R. Kaltenbach, Obstetrics and Gynecology; G. Pfug, Veterinary Medicine; F. W. von Hippel, Ophthalmic Surgery; C. Gähgels, Materia Medica. *Extraordinary Professors*: F. Birnbaum, Diseases of Children; F. Eichbaum, Histology and Veterinary Medicine. There are also *doctores*. In the Philosophical Faculty, subjects connected with medicine are taught by—*Ordinary Professors*: H. Will, Chemistry; H. Hoffmann, Botany; W. C. Röntgen, Experimental Physics; A. Schneider, Zoology. *Extraordinary Professors*: A. Naumann and A. Laubenheimer, Chemistry.

The University Library contains 140,000 volumes. There are an academical hospital, with medical, surgical, and ophthalmic clinics, a lying-in institution, a chemical laboratory, a physiological, a pathological, and a pharmacological institute.

UNIVERSITY OF GÖTTINGEN.

A DEGREE in Medicine, Surgery, and Obstetrics is granted under the following conditions.

1. A written essay must be sent in on any medical subject chosen by the candidate, on the result of which depends the entrance to the examination. 2. If the essay be considered satisfactory, the student is admitted to a *ritual* examination, which lasts a few hours, and is always held in German or Latin, at the option of the candidate. 3. A fee of 450 marks (21*l.* 10*s.*) must be paid to the Medical Faculty prior to examination. 4. The subjects of examination are Anatomy and Morbid Anatomy, Physiology, Pharmacology, General Pathology and Medicine, Surgical Pathology and Surgery, Toxicology, Medical Jurisprudence, and Obstetrics.

If the candidate be successful, he receives a diploma, and promises to hold his academical honour with dignity.

The Medical Faculty of this University consists of the following professors, with private teachers. *Ordinary Professors*: J. Henle, Anatomy; F. Wohler, Chemistry; G. Meissner, Physiology; H. Schwartz, Midwifery and Diseases of Women; L. Meyer, Psychological Medicine; Th. Leber, Oph-

thalmic Surgery; W. Ebstein, Medicine; W. Marmé, Materia Medica; F. König, Surgery; J. Orth, Pathology; W. Baum; *Extraordinary Professors*: H. Eichhorst, Medicine and Diseases of Children; C. F. Lohmeyer, Surgery; J. Rosenbach, Surgery; W. Krause, Physiology; E. F. W. Herbst, Physiology; T. Husemann, Materia Medica and Toxicology; K. Flugge, Physiology. In the Philosophical Faculty instruction is given by—*Ordinary Professors*: —Voigt, Physics; J. Reinke, Botany; F. Eblers, Zoology; the Count of Solms-Laubach, Botany; H. Hubner, Chemistry. *Extraordinary Professors*: C. Boedecker, Pharmacy and Physiological Chemistry; L. von Usler, Organic and Pharmaceutical Chemistry; E. Riecke, Experimental Physics; H. J. Esser, Veterinary Medicine; J. Post, Chemistry.

The following institutions are connected with the Medical Faculty: institutions for teaching animal and vegetable physiology and pharmacology, and pathology; the Ernst-August Hospital, with medical, surgical, and ophthalmic clinics; a lying-in hospital; a psychiatric clinic in the Lunatic Asylum; a chemical laboratory; and a veterinary institute.

UNIVERSITY OF GREIFSWALD.

THE Medical Faculty of this University consists of the following professors, with teachers. *Ordinary Professors*: J. Budge, Anatomy; H. C. A. Pernice, Midwifery and Diseases of Women; F. Grohé, Pathological Anatomy; F. Mosler, Medicine; P. Vogt, Surgery; L. Landois, Physiology; R. Schirmer, Ophthalmic Surgery; H. Schulz, Materia Medica. *Extraordinary Professors*: C. Eichstedt, Midwifery, Diseases of the Skin, and Syphilis; W. Häckermann, Forensic Medicine and Hygiene; R. Arndt, Psychology and Nervous Diseases; P. Krabler, Diseases of Children; F. Sommer, Anatomy. Instruction is given in the Philosophical Faculty by—*Ordinary Professors*: A. H. A. J. Münster, Botany; H. Limprieth, Chemistry; H. Schwanert, Chemistry and Pharmacy; A. Gerstaecker, Comparative Anatomy and Zoology. *Extraordinary Professor*: F. Baumstark, Chemistry.

The University Hospital contains medical, surgical, ophthalmic, and obstetric clinics.

UNIVERSITY OF HALLE.

The following are the regulations for the medical degree.

1. Application for admission to the examinations must be made to the Dean, and at the same time must be presented:—*a*) *curriculum vitæ*; *b*) certificate of maturity from a gymnasium; *c*) certificate of having passed a *tentamen physicum* at least two years previously; *d*) certificates of leaving, from the Universities, over at least eight medical scholastic half years. Whoever is unable to present these certificates complete, and in the manner specified, must obtain a dispensation from the Chief Manager. 2. On making application, 360 marks must be paid to the Dean for the examinations and the promotion, besides which, 12 marks must be paid before the promotion to the Secretary of the University. 3. The examinations are held on two consecutive days, by the regular professors of the Faculty, on each of which days the result of the examination is made known to the candidate. 4. After passing his examination, the can-

didate must compose a scientific treatise on any subject he pleases in medical science, and deliver it to the Dean, together with the theses, to be publicly discussed, and the *curriculum vitæ* for examination and approval; the same when printed must fill at least two quires. The candidate must bear the cost of printing both the treatise and the diploma; but the diploma must be laid before the Dean for approval before being printed. Of the treatise, 172 copies must be delivered to the Secretary of the University at least three days before the promotion, and 40 copies of the diploma; when the Secretary will give a receipt in the name of the Dean, and also for the 12 *marks* mentioned under No. 2. 5. The candidates have to request all the examiners personally to be present at the examination, likewise the members of the Faculty, when handing over the printed treatise for promotion. 6. In the application for promotion, the candidate solicits from the Dean, in a few preliminary words, permission to defend his treatise and the theses; and this takes place, then, against two previously appointed opponents; after which, those present are also called upon to join in the discussion. After the discussion is ended, the candidate begs the Dean to grant him the degree of Doctor; and this is done by administering the doctoral oath, and delivering the diploma. 7. Whoever fails to pass the examination, which includes all branches of medicine and surgery, will receive back from the fees paid $40\frac{1}{4}$ *marks*; the rest goes to the Faculty. 8. The time for taking the degree is left to the candidate. He must not, however, exceed one year from the time of passing the examination to the taking of the degree, or else he will have to submit to re-examination, and must pay over again all the fees.

The following professors, with several private teachers, constitute the Medical Faculty of this University. *Ordinary Professors*: L. Krahmer, *Materia Medica* and *Forensic Medicine*; Th. Weber, *Medicine*; R. Olshausen, *Obstetrics and Gynecology*; Th. Ackermann, *Pathology*; H. Welcker, *Anatomy*; R. Volkmann, *Surgery*; J. Bernstein, *Physiology*; A. Gräfe, *Ophthalmic Surgery*; E. Hitzig, *Psychological Medicine*; K. J. Eberth, *Histology*. *Extraordinary Professors*: H. Schwartz, *Diseases of the Ear*; E. Kohlschütter, *Medicine*; E. Harnack, *Animal Chemistry and Biology*; B. Solger, *Anatomy*; A. Seligmüller, *Medicine*. In the Philosophical Faculty, instruction in Sciences connected with Medicine is given by—*Ordinary Professors*: G. Kraus, *Botany*; J. Vollard, *Chemistry*; H. Grenacher, *Zoology*. *Extraordinary Professors*: B. Rathke, *Chemistry*; E. Schmidt, *Pharmaceutical Chemistry*; A. Oberbeck, *Physics*.

The University library contains 100,000 volumes. Connected with the University are a chemical laboratory, a botanical garden, a zoological museum, an anatomical theatre and zoological museum, a lying-in institution, a medico-surgical hospital, and physiological, pathological, and pharmaceutical laboratories.

UNIVERSITY OF HEIDELBERG.

The following are the regulations to be observed for graduation in medicine in this University.

1. In applying for examination for the degree of Doctor, no evidence of previous study is required.
2. The same demands are made of all candidates; the only difference is that the oral examination is

shortened if evidence be produced that the candidate has undergone, in the German empire, the *Staats-examen* for licence to practise. 3. The subjects of examination are (1) *Anatomy*; (2) *Physiology*; (3) *Pathological Anatomy*; (4) *Materia Medica* (*Pharmacognosics, Pharmacodynamics, and Toxicology*); (5) *Medicine*; (6) *Surgery*; (7) *Midwifery*; (8) *Ophthalmic Surgery*. 4. A Candidate may select one of these as the principal subject of his examination. All the other subjects then become secondary. 5. The examination is oral and written. The oral examination can only be conducted in the German language. 6. The written part of the examination consists of a medical dissertation in German or Latin, which must be given in before the oral examination. The Dean of the Faculty of Medicine delivers the dissertation (or a scientific publication by the candidate, which may be substituted for it) to a reporter for his opinion. The reporter is authorised to hold a conversation with the candidate on the subject treated of in the work. In voting on the dissertation, the question is put whether it shall be allowed to be printed. If it be printed, the names of the Dean for the time being, and of the reporter, must appear on the title-page. 7. The oral examination comprises the principal subject chosen by the candidate, and a certain number of the secondary subjects. The number and selection of the secondary subjects vary, according as the state-examination has or has not been passed. If proof be given that a state-examination has been passed in the German Empire, the candidate is examined in the principal subject, and in three of the secondary subjects, selected by himself. If there be no proof of a state-examination, he is examined in five secondary subjects. Of these, three are fixed—*Anatomy, Physiology, and Pathological Anatomy*; the other two may be chosen by the candidate. But if one of the three fixed subjects be chosen by the candidate as the principal subject, its place as a secondary subject is taken by another, selected by the candidate. 8. The duration of the oral examination depends on the number of subjects. The candidate is examined on the principal subject for thirty minutes, on each secondary one for fifteen or twenty minutes, according to the judgment of the examiners. 9. On the result of the entire examination, three notes are granted. The first (*summa cum laude*) can only be granted when the dissertation has received the *imprimatur* of the Faculty. Even when the *imprimatur* has been received, the result of the oral examination may be such as to entitle the candidate to the second vote (*insigni cum laude*) or to the third (*cum laude*). 10. No oath is administered. When the diploma is delivered to the candidate by the Dean, he has to give his hand in promise that he will bear his academical dignity with honour. 11. The cost of the examination, exclusive of that of the diploma, amounts in all to 444 *marks* (about 22*l.* 5*s.*), which must be paid before the commencement of the examination. Of this sum, if the oral examination be not passed, 179 *marks* (about 9*l.*) are returned. 12. The diploma contains a record of the principal subject, the vote on the whole examination, and the judgment on the dissertation.

The Medical Faculty consist of the following professors, with several teachers. *Ordinary Professors*: F. Kehler, *Midwifery*; W. Dellis, *Chemistry*; C. Gegenbaur, *Human and Comparative Anatomy*; W. Kühne, *Physiology and Histology*; O. Becker, *Ophthalmic Surgery*; Th. von Dusch, *Medicine*; W.

Erb, Medicine; J. Arnold, Pathology; V. Czerny, Surgery; C. Furstner, Psychological Medicine. *Honorary Professor*: A. Nuhn, Human and Comparative Anatomy. *Extraordinary Professors*: H. Oppenheimer, Materia Medica; S. Moos, Diseases of the Ears; F. Knauff, Forensic Medicine and Hygiene; H. Lossen, Surgery; A. Weil, Medicine and Diseases of the Skin, and Syphilis; R. Thoma, Pathological Anatomy; H. Braun, Surgery; F. Schultze, Diseases of the Nervous System; A. Jurasz, Diseases of the Throat. In the Philosophical Faculty, instruction in subjects connected with medicine is given by—*Ordinary Professors*: R. Bunsen, Chemistry; H. Kopp, Chemistry; G. Quincke, Experimental Physics; O. Butschli, Zoology; E. Pfitzer, Botany. *Extraordinary Professors*: A. Bornträger, Pharmacy; A. Horstmann, Chemistry; R. Kossmann, Zoology.

In connection with the University are a hospital, with medical, surgical, and ophthalmic clinics, an institution for diseases of the ear, a lying-in institution, anatomical, pathological, physiological, and zoological institutes, two chemical laboratories, and a botanical garden.

UNIVERSITY OF JENA.

THE Faculty of Medicine of this University grants a degree in Medicine, Surgery, and Obstetrics, the conditions for which are as follow:

1. Certificate to be given as to the extent of medical studies, and the period of time which has elapsed since their completion (at least six terms).
2. Satisfactory evidence as to character, from the neighbouring head office of police.
3. A written essay upon any subject of medical science, in German or Latin. The same composition may be given up, to be printed afterwards in the form of a dissertation.
4. Matriculation into this University. This is done when, upon fulfilment of the other conditions, the candidate himself makes his appearance.
5. Payment of examination and promotion fees must be made to the amount of 141 *thalers* (about 22*l.*). In case the examination is not passed, the promotion fees and 52 *thalers* are returned. The examination will be held in the German language only. It comprises all branches of medicine, viz.: Anatomy, Physiology, Histology, General Pathology, Pathological Anatomy, Special Pathology, Medicine, Therapeutics, Surgery, Obstetrics, &c. When the examination is passed, the student has to give in his dissertation, the subject of which he chooses for himself. The Faculty examines the work to see whether it is worth publication. A dispensation from the Latin or German disputation may be granted, when the examination is very satisfactorily passed. After the essay is printed, and also when the public disputation is over, the making out of the medical diploma takes place. The degree of doctor will only be granted in this University by the Faculty upon fulfilment of the above-named conditions.

The Medical Faculty of this University is constituted as follows. *Ordinary Professors*: F. Ried, Surgery; B. Schultze, Obstetrics; W. Müller, Pathology; W. Preyer, Physiology; O. Hertwig, Anatomy (vacant), Medicine. *Honorary Professor*: M. Seidel, Materia Medica. *Extraordinary Professors*: L. Schillbach, Diseases of the Eye and Ear; C. Frommann, Physiology and Histology; C. Bardeleben, Anatomy; P. Fürbringer, Diseases of the Skin, and Syphilis; O. Küstner, Gynecology; H.

Kuhnt, Ophthalmic Surgery. Subjects connected with Medicine are also taught in the Philosophical Faculty by—*Ordinary Professors*: G. A. Geuther, Chemistry; E. Häckel, Zoology. *Extraordinary Professors*: E. Reichardt, Chemistry; E. Hallier, Botany; R. Hertwig, Zoology; H. Gutzeit, Chemistry and Pharmacy.

Connected with the University are the Grand-Ducal hospital, lying-in institution, and lunatic asylum; anatomical, zoological, physiological, pathological, and chemical laboratories and museums, &c.

UNIVERSITY OF KIEL.

The following are the conditions for obtaining the medical degree: 1. The presentation, on application, of (a) a *curriculum vitæ*; (b) certificate of medical studies; (c) a scientific treatise; 2. A written examination; 3. A verbal examination before the Faculty; 4. Payment of 360 marks.

In this University the Medical Faculty consists of the following professors, with five private teachers. *Ordinary Professors*: C. C. T. Litzmann, Obstetrics and Gynecology; F. Esmarch, Surgery; H. Quincke, Medicine; V. Hensen, Physiology; A. Heller, Pathology; C. Völckers, Diseases of the Eye; W. Flemming, Anatomy. *Extraordinary Professors*: J. Bockendahl, Forensic Medicine; G. J. F. Edlefsen, Medicine; F. Petersen, Surgery; A. Pansch, Anatomy; F. A. Falck, Materia Medica. Instruction is also given in the Philosophical Faculty by *Ordinary Professors*: C. Himly, Chemistry; K. Möbius, Zoology; A. Engler, Botany; A. Ladenburg, Chemistry.

There are a medico-chirurgical hospital, containing medical, surgical, and ophthalmic clinics, a lying-in institution, and laboratories and museums in connection with the several subjects taught.

UNIVERSITY OF KÖNIGSBERG.

THE Medical Faculty of this University consists of the following professors, with several private teachers. *Ordinary Professors*: W. von Wittich, Physiology; R. Dobrn, Obstetrics and Gynecology; (vacant), Anatomy; E. Neumann, Pathology; C. Schönborn, Surgery; B. Naunyn, Medicine; J. Jacobson, Ophthalmic Surgery; M. Jaffe, Medical Chemistry. *Extraordinary Professors*: H. Bohn, Diseases of the Skin; A. W. Grünhagen, Histology; S. Samuel, Therapeutics; S. Pincus, Forensic Medicine; E. Berthold, Diseases of the Eye and Ear; F. R. A. Schneider, Surgery and Military Surgery; B. A. Benecke, Anatomy; E. Burow, Surgery; J. Caspary, Diseases of the Skin and Syphilis; P. Baumgarten, Pathology; J. Schreiber. Lectures are also given in the Philosophical Faculty by—*Ordinary Professors*: R. Caspary, Botany; H. Spigatis, H. Ritthausen, and W. Lossen, Chemistry.

Connected with the University are anatomical, pathological, and physiological institutions, medical, surgical, obstetrical, and ophthalmic clinics; chemical and pharmaceutical laboratories, &c.

UNIVERSITY OF LEIPZIG.

THE Medical Faculty of this University consists of the following professors and a number of private teachers. *Ordinary Professors*: J. Radii, Hygiene and Pharmacology; F. Hofmann, Hygiene; E. Wagner, Medicine; C. S. F. Credé, Midwifery; J. Cohnheim, Pathological Anatomy; C. F.

W. Ludwig, Physiology; C. Thiersch, Surgery; E. A. Coccuss, Ophthalmic Surgery; W. His, Anatomy; C. W. Braune, Topographical Anatomy; A. Strümpell, Medicine. *Extraordinary Professors*: H. Sonnenkalb, Forensic Medicine and Hygiene; J. V. Carus, Zoology and Comparative Anatomy; A. Winter, Materia Medica; C. Hennig, Obstetrics; C. H. Reclam, Forensic Medicine and Hygiene; B. G. Schmidt, Surgery; E. F. Wenzel, Anatomy and Histology; J. O. L. Heubner, Medicine; E. R. Hagen, Otology, &c.; A. R. Brenner, Diseases of the Nervous System; P. E. Flechsig, Anatomy and Histology; E. Drechsel, Physiology; C. Weigert, Medicine; A. Rauber, Anatomy. Instruction is also given in the Philosophical Faculty by—*Ordinary Professors*: W. Hankel, Physics; H. Kolbe, Chemistry; A. Schenck, Botany; R. Leuckart, Zoology; G. Wiedemann, Chemistry. *Extraordinary Professors*: H. Hirzel, Pharmacy; F. A. Zurn, Veterinary Medicine; A. Weddige, Chemistry.

In connection with the University are chemical, physico-chemical, and pathologico-chemical laboratories; a zoological institute, under the direction of Professor Leuckhardt; an anatomical institute, under Professor His; a physiological institute, under Professor Ludwig; and various clinics, &c.

UNIVERSITY OF MARBURG.

Any one wishing to proceed to the medical degree at this University must send in to the Dean of the Faculty of Medicine the following:—

1. A *curriculum vite*; 2. A certificate of scientific studies; 3. A certificate of at least four years' study at a recognised University or Medical College; 4. A dissertation in the German language. If these be considered satisfactory by the Faculty, the candidate is then admitted to a *viva voce* examination in the German language. If the examination be satisfactorily passed, the dissertation must be printed at the candidate's expense, and publicly defended. Three or four printed theses must also be sent in. The cost for the diploma is 330 marks (16l. 10s.).

The following are the professors in the Medical Faculty of this University. *Ordinary Professors*: H. Nasse, Physiology; W. Roser, Surgery; R. Böhm, Medicine; P. Ahlfeld, Midwifery; N. Lieberkühn, Anatomy; F. Marchand, Pathological Anatomy and General Pathology; E. Mannkopf, Pathology and Therapeutics; H. Schmidt-Kimpler, Ophthalmology; H. Kramer, Psychology; E. E. Külz, Physiology. *Extraordinary Professors*: G. Wagener, Anatomy; H. Horstmann, Forensic Medicine; H. Lohs, Midwifery. Lectures are also given in the Philosophical Faculty by—*Ordinary Professors*: C. Zwenger, Pharmaceutical Chemistry; A. Wiegand, Botany; R. Greeff, Zoology; T. Zincke, Chemistry.

A hospital and various laboratories, &c., for practical instruction are connected with the University.

UNIVERSITY OF MUNICH.

In granting medical degrees at this University a distinction is made between those candidates who have already passed a satisfactory public examination as Physicians before a German Commission of Examiners, and those who have not—be they natives or foreigners. From those candidates who have already passed the satisfactory German examination nothing further is required in order to admit

them to compete for the doctorate than the certificate of having passed such examination. The Faculty requires, however, the presentation of a dissertation, written in either the Latin or German language. This is delivered by the Dean to one of the members of the Faculty for examination and judgment, and with his judgment it is circulated amongst the Faculty. If the Faculty approve of it, then it is printed at the expense of the candidate for the members of the Faculty.

Candidates, however, who have not passed the German 'Approbation-Examination' for Physicians, must, before being admitted to the doctorate examination, present to the Medical Faculty the following: 1. A gymnasial certificate, or at least such certificate as shows that the candidate has enjoyed a regular education; 2. Certificates of at least four years' attendance at a university or medical institution, and of attendance at the lectures on the principal branches of natural science and medicine; 3. Clinical certificates of the treatment of an internal surgical and eye complaint, and also assistance at a birth; 4. A certificate of the performance of an operation on the dead body, and the application of a bandage; 5. The candidate must then pass a two hours' verbal examination (in the German language) in the following branches, viz.: Anatomy, Physiology, General Pathology and Pathological Anatomy, Materia Medica, Therapeutics, Surgery, Midwifery, Hygiene, Diseases of the Eye; 6. The candidate has also to give in a dissertation, which must be examined by a member of the Faculty to see whether it is worthy of being printed. The printing may be dispensed with at the request of the candidate; 7. The fees for examination and promotion amount, for both kinds of candidates, to 100 *thalers*, 300 *marks*, or 175 *florins* (15l.).

The professorial staff of the Medical Faculty of this University is constituted as follows. *Ordinary Professors*: F. N. von Gietl, Medicine; F. C. von Rothmund, Surgery and Clinical Surgery; C. T. von Siebold, Zoology and Comparative Anatomy; F. Seitz, Materia Medica; L. A. Buchner, Pharmacy; M. von Pettenkofer, Hygiene; F. C. L. Winckel, Midwifery; J. N. von Nussbaum, Surgery and Clinical Surgery; A. von Rothmund, Ophthalmic Surgery; C. von Voit, Physiology; H. von Ziemssen, Special Pathology and Therapeutics; B. von Gudden, Psychology; C. Kupffer, Anatomy; N. Rüdinger, Anatomy; O. Bollinger, Pathology and Hygiene. *Extraordinary Professors*: H. Ranke, Medicine; J. Amann, Midwifery; A. Martin, State Medicine; J. Oertel, Laryngoscopy; H. von Bock, Toxicology; J. Bauer, Medicine. Instruction is also given in the Philosophical Faculty by—*Ordinary Professors*: G. von Jolly, Experimental Physics; C. T. von Siebold, Comparative Anatomy; C. W. von Nägeli, Botany; L. Radlkofer, Botany; A. Bayer, Chemistry. *Extraordinary Professors*: J. Ranke, Physiology; E. Fischer, Chemistry.

The University, which is situated in the Ludwigstrasse, contains a library consisting of 500,000 volumes. The chemical laboratory for hygiene is under the direction of Professor von Pettenkofer.

UNIVERSITY OF ROSTOCK.

WHOEVER wishes to graduate as 'Medicinæ, Chirurgiæ, et Artis Obstetriciæ Doctor' at this University, must apply to the Dean of the Medical Faculty, and deliver to him the following documents.

1. A certificate of having gone through the requisite course of studies in a university. 2. A certificate of examination, testifying to the ability of the candidate in the practice of medicine. 3. A treatise on any subject appertaining to medical science, composed by the candidate himself. A fee of 350 marks must be paid to the Faculty at the same time, of which two-thirds will be returned provided the treatise is not deemed satisfactory. The proof of having passed a satisfactory examination in Germany is, under the circumstances, satisfactory. If, however, this document should not appear satisfactory, or cannot be presented at all, the Faculty require that the candidate be subjected to an examination by the Faculty which shall pretty nearly correspond to the German States' Examination. For this examination an additional sum of 200 marks must be paid to the Faculty. Only for special cases does the Faculty reserve to itself a special form of examination.

The inaugural dissertation must be the candidate's own, and he must append to his treatise a written declaration to that effect. It is not, however, required that the work be composed entirely without assistance; but in this case the literary resources, and also the name of him or them from whom he has received help, must be clearly and distinctly stated. Those essays are considered the best which contribute most to medical or scientific knowledge. After the dissertation has been stamped by the Dean in the name of the Faculty, the same must be printed, at the expense of the author, and at least 125 copies delivered to the Faculty. When the candidate has satisfactorily fulfilled the above conditions, he must introduce his essay, and read it publicly in the Aula, and defend it against any objections that may be made.

Promotions *in absentia* cannot be made, except only in the case of a *promotio honoris causâ* for distinguished service to medical science.

The Medical Faculty of this University consists of the following *Ordinary Professors*: T. Thierfelder, Special Pathology and Therapeutics; H. R. Aubert, Physiology; W. von Zehender, Ophthalmology; F. Schatz, Midwifery; F. S. Merkel, Anatomy; O. Nasse, Chemistry; O. W. Madelung, Surgery; A. Thierfelder, Pathological Anatomy. *Extraordinary Professor*: J. Uffelman, Medicine. In the Philosophical Faculty, lectures on subjects connected with medicine are delivered by—*Ordinary Professors*: J. Roeper, Botany; O. Jacobsen, Chemistry; A. Götze, Comparative Anatomy and Zoology; and L. Matthiessen, Experimental Physics.

UNIVERSITY OF STRASBURG.

THE following is an extract from the regulations of the University of Strasburg relative to Degrees in Medicine.

Any person desirous of obtaining the degree of Doctor of Medicine can only be admitted to graduation on fulfilling the following conditions. *a.* If he belong to the German Empire, he must have completed an academical four years' course of study of Medicine, or of the Natural Sciences. By an unanimous decision of the Faculty, one or two Sessions may be omitted. Foreigners desirous of graduating are not required to have passed through the four years' course if they produce proof of having received instructions equivalent to the course of study

in the Medical Faculty of Germany. *b.* He must present a scientific essay (dissertation) composed by himself. *c.* He must undergo the Faculty examination. *d.* He must pay the prescribed fee of 240 marks. In his application for graduation, which must be addressed to the Dean, the candidate must produce the evidence referred to in *a.*, and forward a scientific memoir in some department of medicine, with a written assurance that it is absolutely his own composition. If the dissertation receive the approval of the Faculty, the candidate is admitted to examination.

The examination is conducted by the ordinary professors, and consists, as a rule, of an oral theoretical examination in all important departments of medicine. If the candidate fail to give satisfaction in the oral examinations, he must, in order to obtain the degree of doctor, again undergo the examination after a time to be determined by the Faculty, but he is not required to present a second dissertation. In the case of candidates who have already passed the State examination a colloquy before three members of the Faculty may, by the unanimous decision of the Faculty, be substituted for the oral examination.

Degrees in Medicine are not conferred on absent candidates.

If the dissertation be rejected, the candidate receives the whole fee back. If the dissertation be approved, but the candidate fail in the examination, 90 marks are returned to him; but when he is again admitted to examination, only half that fee is required. After the Faculty examination has taken place, and the dissertation has been printed and published, the candidate is formally admitted to the degree of Doctor by the issuing of a printed diploma, the names of the successful candidates being announced. The candidate has to bear the expense of printing the dissertation and of the diploma. There is no public ceremony, and no oath is administered.

Matriculation takes place on the first four Wednesdays of the season, from twelve to one o'clock. After the end of these four weeks the rector can allow matriculation only on special grounds. Any one desirous of matriculating as a student, and attending the lectures and other instructions given in the University, must, on his arrival in Strasburg, communicate with the Secretary of the University in order to be inscribed. Other persons desirous of attending the lectures must obtain permission from the respective teachers, and must then at once communicate with the Secretary of the University.

The following are the professors and teachers of the University. *Ordinary Professors*: G. Schwalbe, Human Anatomy and Embryology; J. G. Jessel, Anatomy; T. L. Goltz, Physiology; F. Hoppe-Seyler, Physiological and Pathological Chemistry; O. Schmiedeberg, Pharmacology and Therapeutics; F. von Recklinghausen, Pathological Anatomy and Physiology, and Histology; A. Kussmaul, Medicine and Clinical Medicine; A. Lücke, Surgery and Clinical Surgery; W. A. Freund, Obstetrics and Gynaecology; F. Wiegner, History of Medicine, Diseases of the Skin, and Syphilis; A. Aubenas, Obstetrics and Gynaecology; F. Jolly, Psychiatry; L. Laqueur, Diseases of the Eye. *Extraordinary Professors*: G. Kohts, Medicine and Diseases of Children; A. Kuhn, Diseases of the Ear; E. Fischer. There are also several *doctents*. Instruction in subjects connected with Medical Science is also

given in the Faculty of Mathematics and Natural Science by the following—*Ordinary Professors*: O. Schmidt, Comparative Anatomy; A. de Bary, Botany; A. Kundt, Experimental Physics; R. Fittig, Experimental Chemistry. *Extraordinary Professors*: F. Rose, Practical Chemistry; C. F. Braun, Physics.

Connected with the University are institutions for the practical study of anatomy, experimental physiology, physiological chemistry, pathology, and pharmacology, and clinics for medicine, surgery, midwifery, mental diseases, diseases of the eye, and syphilis, and diseases of the skin.

UNIVERSITY OF TÜBINGEN.

THE Faculty of Medicine here grants a degree in Medicine under the following conditions.

1. The candidate must send in with his application—a. *curriculum vitæ*; b. A certificate of having gone through a thorough course of instruction at the Gymnasium or some equivalent institution; c. Proof of a sufficient study of medicine at a university, and certificates of having attended the lectures having reference to the subjects of examination. 2. The examination consists of a written and a subsequent verbal one. A legalised proof of having passed a satisfactory examination in medicine and surgery in a foreign country dispenses with the written examination, but not with the verbal one. In no case can a degree be granted *in absentia*. 3. In the written examination will be put one question in each of the following subjects: 1. Anatomy; 2. Physiology; 3. *Materia Medica*; 4. General Pathology and Therapeutics; 5. Two questions in Special Pathology and Therapeutics. In addition to which, if a Doctor's degree in Surgery be required, one question will be put on each of the following subjects: 1. General Surgery; 2. Special Surgery; 3. Surgical Operations; 4. Midwifery. 4. The fees amount to 300 marks, including the printing of the diploma, which fee must be paid on application. If the candidate be rejected at the written examination, and be not admitted to the verbal one, the whole of the fees will be returned. If he be rejected after the verbal one, only half will be returned. 5. The candidate must compose a dissertation under the presidency of a member of the Faculty, and get it printed; 250 copies are to be presented to the University. If, however, the essay be published either in a periodical or as a special pamphlet, 100 copies will suffice, but they must be provided with a special title-page. Only such candidates as have given numerous and satisfactory literary proofs of their capacity can be allowed to dispense with the composition.

The Medical Faculty of this University consists of the following professors, with private teachers. *Ordinary Professors*: P. Bruns, Surgery; K. von Vierordt, Physiology; J. von Söxinger, Midwifery; C. von Liebermeister, Medicine and *Materia Medica*; F. H. Jürgensen, Medicine and Diseases of Children; A. Nagel, Ophthalmology; P. J. W. Henke, Anatomy; E. Ziegler, Pathology. *Extraordinary Professors*: O. Oesterlen, Forensic Medicine and Hygiene. Lectures are also given on subjects connected with Medicine in the Faculty of Natural Science by—*Ordinary Professors*: F. von Reusch, Experimental Physics; T. Eimer, Zoology; C. G. Küfner, Chemistry; L. Meyer, Chemistry; W.

Pfeffer, Botany; and *Extraordinary Professor*: Hegelmaier, Botany.

A hospital and institutions for practical instruction are connected with this University.

UNIVERSITY OF WÜRZBURG.

BEFORE being admitted to the examination for the Doctorate of Medicine, Surgery, and Midwifery, the candidate must pass the medical approbation examination, which consists in showing—by testimonials or certificates—that he has a good moral character, and that he has passed through four years' study at an University, six sessions of which must have been devoted to medical studies. Upon fulfilment of these conditions, the candidate will be admitted to a written and *vivâ voce* examination, before which, however, he must pay to the Faculty 300 marks (£15). The written examination consists in the composition of an essay on some subject in theoretical or practical medicine, which dissertation must be handed to the Dean, who will give it to one of the examining professors to report on. It is customary for the dissertation to be printed. If the decision of the reporter with regard to the theme be unfavourable, admission to the *vivâ voce* examination is denied, and another theme must be composed and handed in at a future time. Should the second theme, however, be deemed unsatisfactory, the candidate will not be allowed to reappear. He then receives back all his fees except 30 marks. If the dissertation be approved by the Faculty, the candidate is admitted to a *vivâ voce* examination, in the German language, which consists of the following subjects: Anatomy and Pathological Anatomy, Physiology, Pathology and Medicine, Special Therapeutics, Surgery, Obstetrics and Ophthalmology. A knowledge also of Psychology and State Medicine is required. After taking the examination oath, the result and standing of the examination is imparted to the candidate by the Dean—whether very good, good, or moderate.

When the candidate is unsuccessful at the *vivâ voce* examination, he receives back half the fees, and is allowed to present himself for examination again in six months' time by paying half the fees again. Only one more attempt is, however, allowed after the first rejection at the *vivâ voce* examination.

After successful examination, the candidate receives his diploma of doctor.

In this University, the Medical Faculty consists of the following professors, with several *doctores*. *Ordinary Professors*: A. von Kölliker, Anatomy; F. W. Scanzoni von Lichtenfels, Midwifery; H. Maas, Surgery and Clinical Surgery; A. Fick, Physiology; C. Gerhardt, Medicine and Clinical Medicine, and Diseases of Children; G. E. Rindfleisch, Pathological Anatomy, General Pathology, and History of Medicine; J. Michel, Ophthalmic Surgery; A. Geigel, Clinical Medicine and Hygiene; M. Rossbach, *Materia Medica*. *Extraordinary Professors*: A. F. von Troltsch, Aural Surgery; W. Reubold, Forensic Medicine. Lectures are also given in the Philosophical Faculty by—*Ordinary Professors*: J. Sachs, Botany; J. Wislicenus, Chemistry; C. Semper, Zoology; F. Kohbrausch, Experimental Physics; and—*Extraordinary Professor*: L. Medicus, Chemistry.

AUSTRO-HUNGARIAN EMPIRE.

GRADUATION IN MEDICINE.

THE Universities of the Austro-Hungarian Empire which possess Medical Faculties and grant degrees in medicine are: Agram (Croatia), Graz (Styria), Innsbrück (Tyrol), Cracow, Lemberg (Galicia), Pesth (Hungary), Prague (Bohemia), and Vienna.

All the Universities are under Government control, and the degree of Doctor of Medicine obtained at any of them alone gives the right to practise medicine in the empire.

The course of study required of candidates for the degree of Doctor of Medicine in the Universities of the Austrian Empire extends over five years, or five winter and five summer terms or *semesters*. The following arrangement is recommended by the Government. (The first, third, fifth, seventh, and ninth are winter *semesters*; the others are summer *semesters*.) 1st *Semester*: Systematic Anatomy; Experimental Physics, Inorganic Chemistry; General Botany; Dissections. 2nd *Semester*: Systematic Anatomy (second part); Experimental Physics (second part); Organic Chemistry; Special Botany; Mineralogy; Practical Introduction to Chemical Analysis; Practical Introduction to the Use of the Microscope. 3rd *Semester*: Physiology; Histology; Medical Chemistry; Zoology; Dissections. 4th *Semester*: Physiology (second part); Embryology; Exercises in Physiology; in Histology; and in Medical Chemistry. 5th *Semester*: General Pathology and Therapeutics; Pharmacology; Pathological Anatomy; Pathological Histology; *Post mortem* Examinations; Practical Introduction to the Physical Examination of Patients. 6th *Semester*: Pathological Anatomy (second part); Special Pathology, Therapeutics, and Clinic of Internal Diseases; Special Surgical Pathology, Therapeutics, and Clinic; *Post mortem* Examinations; Exercises in Pathological Histology. 7th *Semester*: Special Pathology, Therapeutics, and Clinic of Internal Diseases; Special Surgical Pathology, Therapeutics, and Clinic; Diseases of the Eye; Exercises in Surgical Anatomy; (Operations). 8th *Semester*: Internal Diseases; Surgery or Diseases of the Eye; Surgical Operations; (Surgical Anatomy). 9th *Semester*: Internal Diseases; Surgery; Theory and Practice of Obstetrics and Gynaecology; Forensic Medicine; (Exercises in Obstetric Operations); Medico-Legal Exercises. 10th *Semester*: Clinics of Diseases of Children; of Diseases of the Skin; and of Syphilis; (Obstetrics and Gynaecology); Exercises in Obstetric Operations; (Medico-Legal Exercises). Of the subjects included in brackets, one course only is required, which may be attended in either a winter or a summer term, at the option of the student.

Candidates for the degree of Doctor of Medicine are required to undergo three examinations (*rigorosen*). Before being admitted, the candidate must produce (a) his certificate of birth or baptism, and evidence (b) of having received a sufficient preliminary education in one of the institutions of the countries comprised in the empire, or, if he do not belong to any of these, evidence of having matriculated as an ordinary student in a Faculty of Medicine; (c) evidence of having attended lectures in a medical school during at least four sessions, and of having dissected during two sessions; (d) of having passed, at one of the Universities of the empire, three examinations, in Botany, Zoology, and Miner-

alogy. Before being admitted to the second examination, he must produce evidence of having been engaged five years in professional study, and of having studied Clinical Medicine and Clinical Surgery, each during four sessions, and Clinical Ophthalmology and Clinical Midwifery, each during at least one session; and of having passed the first examination.

The first examination embraces Physics, Chemistry, Anatomy, and Physiology. There is a practical examination on Anatomy and Physiology, and a theoretical examination on all four subjects.

The second examination includes General Pathology and Therapeutics, Pathological Anatomy and Histology, Pharmacology (pharmacodynamics, toxicology, and prescribing), and the Pathology and Therapeutics of internal diseases. The candidate is examined practically in Pathological Anatomy (with preparations and on the dead body), and in Medicine (at the bedside); and theoretically in all the subjects.

The third examination embraces Surgery, Ophthalmic Surgery, Midwifery and Diseases of Women, and Forensic Medicine. The examinations in Surgery, Ophthalmic Surgery, and Midwifery, are practical; and there are theoretical examinations in all the subjects.

All these examinations must take place at the same University. In very exceptional circumstances only is a candidate allowed to pass the second or third examination at another University than that at which he has passed the first.

The examinations are public, and are conducted by a President, the regular examiners, extraordinary examiners when required by the number of candidates, the Government commissioner; and at the second and third there is a co-examiner appointed by the Government. Each member of the commission examines for a quarter of an hour.

A candidate is not admitted to the theoretical examination unless he has satisfied the examiners in the practical one. If he fail at the practical examination, he may present himself again at the end of six months; if again rejected, six months must elapse before he can be again examined. A candidate rejected at the theoretical examination by one examiner only may be readmitted to examination in the subject in which he is deficient, at the end of two months. If again rejected, he cannot be again examined in less than four months. If rejected at the theoretical examination by more than one examiner, he may re-appear a second and third time at intervals of six months. A rejected candidate can, however, be examined a third time, whether in practice or in theory, with the sanction of the Minister of Public Instruction, and the consent of the College of Professors; and if he then fail, he is debarred henceforth from obtaining a degree in medicine in any of the Universities of the empire.

The fee for the first examination is 55 florins, for the second 60 florins, and for the third 65 florins (Austrian). The promotion fees for the Doctorate amount to 60 Austrian florins. The total fee for the M.D. degree is about £23 of English money.

UNIVERSITY OF VIENNA.

IN this University, the Medical Faculty is constituted as follows. *Ordinary Professors*: E. von Brücke, Physiology; E. Albert, Practical and Clinical Surgery; C. Langer, Descriptive and

Topographic Anatomy; C. R. Braun von Fernwald, Theory and Practice of Midwifery; H. von Bamberger, Special Medical Pathology, Therapeutics, and Clinical Medicine; H. Kundrat, Pathological Anatomy; H. Nothnagel, Special Medical Pathology and Therapeutics, and Clinical Medicine; J. Späth, Theory and Practice of Midwifery; C. Stellwag von Carion, Ophthalmic Surgery; Th. Billroth, Practical and Clinical Surgery; G. Braun, Midwifery (for Midwives); E. Hofmann, Forensic Medicine; I. Neumann, Syphilology; C. Wedl, Histology; S. Stricker, Experimental and General Pathology and Therapeutics; T. Meynert, Psychiatry and Nervous Diseases; A. E. Vogl, Pharmacology and Pharmacognosy; E. Ludwig, Chemistry; M. Kaposi, Diseases of the Skin, and Syphilis. *Extraordinary Professors:* E. Jäger von Jaxthal, Ophthalmic Surgery; J. Seegen, Balneology; C. Cessner, Use of Instruments and Bandages; H. Zeissl, Syphilology; M. F. Röhl, Contagious Diseases; L. Schlager, Psychiatry; F. Müller, Veterinary Medicine; L. Dittel, Surgery; H. Widerhofer, Diseases of Children; M. Liedesdorf, Psychiatry; M. Schwanda, Medical Physics; M. Benedikt, Electro-Therapeutics and Neuro-Pathology; S. Stern, Elementary Clinical Instruction; A. Politzer, Aural Surgery; J. Gruber, Aural Surgery; J. Weinlechner, Surgery; G. Lobel, Clinical Medicine; S. L. Schenk, Embryology; A. Drasche, Epidemiology; A. R. von Mosetig-Moorhof, Surgery; J. Nowak, Hygiene; C. Stoerk, Laryngoscopy; L. von Schrotter, Diseases of the Chest and Larynx; H. Auspitz, Diseases of the Skin and Syphilis; F. Salzer, Surgery; S. Exner, Physiology; M. Rosenthal, Diseases of the Nervous System; C. Mayrhofer, Midwifery and Gynecology; G. Wertheim, Diseases of the Skin and Syphilis; S. von Jasch, Experimental Pathology; T. Puschmann, History of Medicine; J. Schnitzler, Medicine; R. Chrobak, Gynecology; K. von Rokitansky, Pathology; L. Bandl, Obstetrics and Gynecology; L. von Stoffella, Special Pathology and Therapeutics. The following private teachers have the title of professor: A. Reder, Syphilis and Diseases of the Skin; L. Mauthner, Ophthalmic Surgery; C. Bohm, Surgery; L. M. Politzer, Diseases of Children; W. Winternitz, Medicine. There are also between eighty and ninety private teachers, adjuncts, and assistants. In the Philosophical Faculty, lectures on subjects connected with medicine are given by—*Ordinary Professors:* K. von Brühl, Zoology; L. K. Schmarda, Zoology; K. Claus, Zoology and Comparative Anatomy; J. Stefan, Physics; V. von Lang, Physics; J. Loschmidt, Physics and Chemistry; J. Wiesner, Vegetable Anatomy and Physiology; A. Lieben, Chemistry; L. Barth von Barthenau, Chemistry; A. Korner von Marilaun, Botany; J. Bohm, Botany. *Extraordinary Professors:* H. W. Reichardt, Botany; F. Brauer, Chemistry; F. Exner, Physics; E. Lippmann, Chemistry; E. von Somaruga, Chemistry.

The General Hospital (*Allgemeine Krankenhaus*) is capable of accommodating about 2,000 patients. There are two medical clinics, under Professors Ducheck and von Bamberger; two surgical clinics, one of which is under Professor Billroth; a clinic for Diseases of the Eye, under Professors von Arlt and Stellwag von Carion; and three clinics for Obstetrics—two for students being under the charge of Professors Carl Braun-Fernwald and Späth, and one for Midwives under Professor Gustav Braun.

The clinics for Diseases of Women are under the charge of Professors Braun-Fernwald and Späth. There are also special clinics for Syphilis, under Professor Sigmund; for Laryngoscopy, under Professor Schrötter; for Diseases of Children, under Professor Widerhofer; for Psychology, under Professor Meynert; and for Otolaryngology, under Professor Grüber. A considerable portion of the school is also situated within the hospital; thus there are the Pathological Museum and *post mortem* room, under the direction of the professor of Pathology; the room for medico-legal necropsies, under Professor Hofmann; the Institute for Experimental Pathology, under the direction of Professor Stricker; and the Institute of Chemical Pathology, under Professor Ludwig. The Anatomical Institute and Dissecting Room, under the direction of Professor Langer; the Physiological Institute, where the Practical Physiology is carried on under Professor Brücke; the *Materia Medica* Museum, and the Medical Library are outside the hospital, in the Alsergrund.

The great clinics on medicine, surgery, &c., are conducted during the two sessions, from the middle of October to the middle of March, and from the middle of April to the end of July. They are under the immediate direction of the Professors of the Medical Faculty, and constitute, of course, an essential part of the curriculum of study for the ordinary Austrian student.

The special courses of instruction are most numerous during the regular academical sessions, but there are always some going on, even in August and September. They last usually from four to eight weeks. The courses are given for the most part by the private lecturers and the professors' assistants, and the material for them is derived from the wards of the clinical professors. For a six or eight weeks' course, the fee is usually from fifteen to twenty florins. The instruction in them is demonstrative or practical, involving the use of instruments and apparatus by the students themselves. Clinical instruction on children's diseases is given at the St. Anne's Hospital. This and many other of the courses are often attended by students for a second or even third time. A student desirous of occupying his time to the best advantage at Vienna must be prepared to expend a considerable sum in fees.

Vienna affords great opportunities for the study of pathological anatomy. There are separate *post mortem* rooms for the cases from the clinical wards, medico-legal cases, and the ordinary cases. At the two former, the clinical professor or assistant is usually in attendance. The examinations go on all the morning, there being sometimes as many as a dozen in one day.

Besides the General Hospital, Vienna possesses the Wieden Hospital (600 beds), the Rudolf Institution for the Sick (*K. K. Krankenhaus Rudolfstiftung*) (860 beds), the Lunatic Asylum, the General Polyclinic or Dispensary, the Lying-in Hospital, the Leopoldstadt Children's Hospital (90 beds), the Crown Prince Rudolf Children's Hospital (40 beds), St. Joseph's Children's Hospital at Wieden (100 beds), St. Anne's Children's Hospital (100 beds), &c.

UNIVERSITY OF BUDA-PESTH.

THE Medical Faculty of this University consists of the following professors. *Ordinary Professors:* J. Lenhossek, Anatomy; G. Mihalkovics, Anatomy;

G. Scheuthauer, Pathological Anatomy; E. Jendrassik, Physiology; K. Balogh, Pharmacognosy and General Pathology; T. A. Lumnitzer, Surgery; T. Kézmarszky, Obstetrics; J. Wagner and F. Koranyi, Medicine and Clinical Medicine; J. Kovács, Surgery; W. Schulek, Ophthalmic Surgery; A. Ajtai, Forensic Medicine; J. Fodor, Hygiene; J. Bókai, Diseases of Children; T. Margó, Histology; A. Török, Anthropology; A. Hógyes, General and Experimental Pathology. *Extraordinary Professors*: L. Gebhardt, Diseases of the Chest; E. Poor, Diseases of the Skin; E. Navratil, Rhinoscopy and Laryngoscopy; T. Bakody, P. Plósz, Physiological and Pathological Chemistry; D. Nedelka, Dental Surgery; J. Böke, Aural Surgery; E. Schwimmer, Diseases of the Skin and Syphilis; C. Laufenaucr, Psychiatry; B. Stiller; G. Antal. There are several *doctents*.

UNIVERSITY OF CRACOW.

THE Medical Faculty of this University consists of the following professors, with several *doctents*. *Ordinary Professors*: E. Korczynski, Special Pathology and Therapeutics; — Rydygier, Surgery; J. Mikulicz, Surgery; G. Biotrowsky, Physiology and Histology; L. Teichmann, Descriptive Anatomy; M. Madurowicz von Jelita, Midwifery and Gynaecology; S. Janikowski, Forensic Medicine; J. Rydel, Ophthalmic Surgery; A. Stopczanski, Medical Chemistry; A. Adamkiewicz, General and Experimental Pathology; L. Blumenstock, Forensic and State Medicine; T. Browicz, Pathological Anatomy. *Extraordinary Professors*: A. Rosner, Diseases of the Skin and Syphilis; J. Oettinger, History of Medicine; M. L. Jakubowski, Diseases of Children; S. Domanski, Diseases of the Nervous System; — Obalinski, Surgery. There are also several *privat-doctents* and assistants.

UNIVERSITY OF GRATZ.

IN this University, the Medical Faculty consists of the following professors, with about twelve *doctents*. *Ordinary Professors*: A. Schauenstein, Forensic Medicine; E. Zuckerkandl, Descriptive and Topographical Anatomy; K. von Rzehacek, Surgery; C. von Helly, Midwifery and Gynaecology; A. Rollett, Physiology and Histology; C. Blodig, Ophthalmic Surgery; O. Rembold, Medicine; J. Eppinger, Pathological Anatomy; C. von Schroff, Materia Medica and Therapeutics; C. B. Hoffmann, Medical Chemistry; V. von Ebner, Histology and Embryology; R. von Krafft-Ebing, Psychiatry. *Extraordinary Professors*: J. von Koch, Epidemic Diseases and Sanitary Police; E. Lipp, Diseases of the Skin; R. Klemensiewicz, Experimental and General Pathology; E. Börner, Obstetrics and Gynaecology.

Connected with the University are anatomical, physiological, pathological, and zoological institutes; medical, surgical, ophthalmic, obstetric, and gynaecological clinics; a laboratory for physiological and pathological chemistry; a chemical laboratory, &c. The hospitals are: the general hospital (700 beds); a lying-in hospital (120 beds); the town hospital (80 beds); a children's hospital (80 beds); and two infirmaries (245 beds).

UNIVERSITY OF INNSBRUCK.

THE following professors belong to the Medical Faculty. *Ordinary Professors*: M. Holl, Anatomy; F. Schauta, Obstetrics and Gynaecology; A. Tschurtschenthaler, General Pathology and Pharmacology; M. von Vintschgau, Physiology; F. Schott, Pathological Anatomy; C. Nicoladoni, Clinical Surgery; I. Schnabel, Ophthalmic Surgery; P. von Rokitsansky, Medicine; W. Löbisch, Medical Chemistry. *Extraordinary Professors*: F. Wildner, Veterinary Medicine; J. Oellacher, Histology and Embryology; E. Lang, Syphilology and Dermatology; M. Dietl, Experimental Pathology.

The ordinary laboratories, clinics, and other means of practical instruction, are possessed by this University. There are a general hospital (204 beds) and a lying-in hospital (130 beds).

UNIVERSITY OF KLAUSENBURG.

THE Medical Faculty of this University consists of the following professors. *Ordinary Professors*: L. Davida, Anatomy; F. Klug, Physiology; A. Genersich, Pathology, (vacant) Pharmacy; S. Purjesz, Medicine; J. Brandt, Surgery; A. Szilágyi, Ophthalmic Surgery; J. Maizner, Obstetrics; — Békly, Forensic Medicine; E. Geber, Diseases of the Skin and Syphilis; Rószahgyvi, Hygiene. *Extraordinary Professor*: J. Ossikovsky, Chemistry and Toxicology.

UNIVERSITY OF PRAGUE.

THE Medical Faculty of this University consists of the following professors, with several *doctents*. *Ordinary Professors*: Th. Eiselt and A. Pribram, Clinical Medicine; C. Gusseubauer, Surgery and General Surgery; J. Halla, Clinical Medicine; J. Streng, Midwifery; S. Strupi, Veterinary Medicine; J. Hasner von Artha, Ophthalmic Surgery; Ph. Knoll, General Pathology and Therapeutics; J. Maschka, State Medicine; E. Hering, Physiology; F. Weber von Ebenhof, Midwifery; C. H. Huppert, Medical Chemistry; A. Breisky, Midwifery; C. Toldt, Anatomy and Histology; J. Schötel, Ophthalmology; A. Spina, General and Experimental Pathology; *Extraordinary Professors*: J. Lerch, Forensic, Physiological, and Pathological Chemistry; G. Ritter von Rittershain, Diseases of Children; J. Kaulich, Diseases of Children; S. Mayer, Physiology; P. J. Pick, Skin Diseases and Syphilis; E. Zaufal, Aural Surgery; J. Fischel, Psychiatry; H. Chiari, Pathological Anatomy; W. Weiss, Surgery; C. Weil, Surgery; O. Kahler, Special Pathology and Therapeutics; F. Ganghofner, Special Pathology and Therapeutics; A. Ott, Special Pathology and Therapeutics; V. Janovsky, Dermatology and Syphilis; — Steffel, Anatomy; F. Hofmeister, Pharmacology and Pharmacognosy.

Connected with the University are an anatomical theatre; pathological, physiological, medico-chemical, and zoo-chemical institutes; medical, surgical, ophthalmic and dermatological clinics (one of the medical clinics being Bohemian); obstetric clinics for practitioners and for midwives, &c. The hospitals are: the General Hospital (948 beds), with the affiliated Hospital of the Bohemian sisters (220 beds); the Franz-Josef Children's Hospital (100 beds); the Israelite General Hospital (52 beds); the Hospital of the Brothers of Mercy (166 beds); the Hospital of the Elizabethan sisters (60 beds); the

Public Lunatic Asylum (1,348 beds); the Lying-in Hospital (322 beds for mothers and 176 for children).

SWITZERLAND.

GRADUATION IN MEDICINE.

IN Switzerland, degrees in Medicine are granted in the Universities of Basle, Berne, Geneva, and Zurich. These degrees do not confer a licence to practice, for which a separate examination is required.

UNIVERSITY OF BASLE.

THE degree of Doctor of Medicine, Surgery, and Midwifery, granted by this University, can only be obtained with the fulfilment of the following conditions.

1. Application for admission to the examination must be made to the Dean of the Faculty, in writing, enclosing: *a.* A curriculum vitae; *b.* The academical matriculation of this place; *c.* Certificates of attendance at the academical lectures; *d.* A certificate of conduct from the High School in which the candidate has made his principal studies; *e.* A scientific treatise on any subject he chooses within the sphere of medical or natural science.
2. The examination is partly written (*tentamen*) and partly verbal (*rigorosum*).
3. The written examination consists in the answering of five questions having reference to Anatomy, Physiology, Pathological Anatomy and Pathological Physiology, Special Pathology and Therapeutics, and Surgery.
4. In case of rejection, the Faculty can appoint a time for a repetition of the examination, before which time the candidate cannot be re-examined.
5. The whole of the professors of the Faculty are invited to the verbal examination. The following are the subjects: Anatomy, Physiology, Pathological Anatomy and Physiology, Special Pathology and Therapeutics, Materia Medica, Surgery, Midwifery.
6. The examination by one examiner must not last longer than half an hour.
7. The degrees in which doctorships are granted are *Summa cum laude*, *Insigni cum laude*, *Magna cum laude*, *Cum laude*, and *Ritè*.
8. In adjudicating on both the written and verbal examination, not only will the special knowledge in the respective branches be taken into consideration, but also the possession of a general scientific knowledge, and especially a comprehensive knowledge of Natural Science.
9. One hundred and twenty copies of the treatise must be delivered to the Faculty.
10. Promotions are not granted to applicants who have not passed the examinations here; but the Faculty can confer the degree of doctor on notable and eminent physicians *honoris causa*.
11. The fees for the examination amount to 350 francs, viz., 100 for the *tentamen*, 200 for the *rigorosum*, and 50 for the promotion.
12. If the candidate be rejected after either examination, he forfeits the fees. The re-examination is free of charge.

The following are professors in the Medical Faculty of this University. *Ordinary Professors:* F. Miescher, senior, Pathological Anatomy; L. Rutimeyer, Comparative Anatomy and Zoology; A. Socin, Surgery and Clinical Surgery; H. Immermann, Medicine and Clinical Medicine; J. Kollmann, Anatomy; J. J. Isohoff, Obstetrics and Gynaecology; F. Miescher, junior, Physiology and Physical Chemistry; M. Roth, General Pathology and Pathological Ana-

tomy; L. Wille, Psychiatry; H. Schiess, Ophthalmic Surgery. *Extraordinary Professors:* I. Hoppe, Therapeutics; E. Hagenbach-Burckhardt, Diseases of Children; R. Massini, Polyclinic and Prescribing; A. Burckhardt-Merian, Diseases of the Ear. There are also several private teachers. Lectures on subjects connected with Medicine are given in the Mathematical and Scientific Department of the Philosophical Faculty by—*Ordinary Professors:* E. Hagenbach-Bischoff, Experimental Physics; J. Piccard, Chemistry; and H. Vochting, Botany. *Extraordinary Professor:* F. Kraft, Chemistry.

Connected with the University are the town hospital, where clinics for medicine, surgery, diseases of the eye, mental diseases, and midwifery are conducted; a hospital for diseases of children, and institutions for practical instruction in physiology, pathology, chemistry, and botany.

UNIVERSITY OF BERNE.

BEFORE admission to examination for the Degree in Medicine and Surgery, the candidate must submit to the Faculty of Medicine a manuscript dissertation of scientific value. If this be accepted, he must, after producing evidence of general, scientific, and medical education, be examined *viva voce* in Anatomy, Physiology, Pathological Anatomy, Legal Medicine, General Pathology and Medicine, Surgical Pathology and Surgery, Materia Medica, and Ophthalmology.

The Medical Faculty of this University is constituted of the following professors and about thirteen *doctors*. *Ordinary Professors:* P. Grütznier, Physiology; C. Emmert, Forensic Medicine and Hygiene; C. Aeby, Human and Comparative Anatomy; T. Kocher, Surgery; T. Langhans, Pathological Anatomy; L. Lichtheim, Medicine; P. Müller, Midwifery; A. Vogt, Hygiene; E. Plüger, Ophthalmic Surgery; M. von Nencki, Physiological Chemistry; B. Luchsinger, Experimental Pharmacology and Toxicology. *Extraordinary Professors:* E. Schärer, Psychiatry; R. Demme, Diseases of Children. There are several private teachers. Instruction in subjects connected with medicine is also given in the Mathematical and Scientific Department of the Philosophical Faculty by—*Ordinary Professors:* V. Schwarzenbach, Chemistry and Pharmacy; L. Fischer, Botany; A. Forster, Experimental Physics; T. Studer, Zoology. Medical, surgical, obstetric, and special clinics and physiological, pathological and clinical laboratories, &c., are connected with the University.

UNIVERSITY OF GENEVA.

THE University of Geneva grants the degree of Bachelor in Medical Science and Doctor of Medicine.

The following classes of persons are admitted as students in the Faculty of Medicine: 1. Bachelors in Letters; 2. Bachelors in Science; 3. Students who have attended during two years' lectures in the Section of Philosophy, and have undergone the examinations at the end of each year; 4. Pupils from the Classical Section of the Gymnasium, with certificates of Studies; 5. Swiss and strangers who give evidence of their studies by means of diplomas or certificates; 6. Persons who undergo satisfactory oral examinations in the subjects comprehended in the classical section of the Gymnasium; 7. Persons who furnish evidence that they have studied abroad, for a year at least in a corresponding faculty, may be inscribed in the Faculty of Medicine.

The course of study is as follows : *First Year: Winter Session:* Botany (first part); Physics (first part); Comparative Anatomy or Zoology; Inorganic Chemistry; Practical Comparative Anatomy. *Summer Session:* Botany (second part); Physics (second part); Comparative Anatomy or Zoology; Organic Chemistry (first part); Practical Chemistry; Botanical Excursions. *Second Year: Winter Session:* Descriptive Anatomy (first part); Physiology (first part); Organic Chemistry (second part); Dissections. *Summer Session:* Descriptive Anatomy (second part); Physiology (second part); Practical Chemistry and Practical Comparative Anatomy. (Students are recommended to attend, in addition, courses of other subjects, such as Astronomy, Geography, Physics, Mineralogy, Geology, &c.) *Third Year: Winter Session:* Descriptive Anatomy (third part); Normal Histology; Dissection. *Summer Session:* Regional Anatomy; Embryogeny. Supplementary courses on subjects of the preceding years, on which the student's knowledge is weak; Practical Physiology, Histology, Comparative Anatomy, and Chemistry. (The examination for Bachelor in Medical Sciences is now undergone.) *Fourth Year: Winter Session:* General Pathology; Internal Pathology; External Pathology; Dissection of Regions; Medical and Surgical Hospital Practice. *Summer Session:* Special Pathological Anatomy; Pathological Histology; Internal Pathology; External Pathology; Pharmacology; Medical and Surgical Hospital Practice; Exercises in the Laboratory of Pathological Histology. *Fifth Year: Winter Session:* Therapeutics; Hygiene; Legal Medicine; Theory of Obstetrics; Internal Pathology; External Pathology and Operations; Medical and Surgical Hospital Practice. *Summer Session:* Therapeutics; Legal Medicine; Internal Pathology; External Pathology; Medical and Surgical Hospital Practice; Operations. *Sixth Year: Winter and Summer Sessions:* Medical, Surgical, and Obstetrical Hospital Practice; Polyclinic; Ophthalmology; Psychology, &c. Repetitions preparatory to the examination for the Doctorate.

Persons who have satisfied the conditions laid down regarding the admission of students to the Faculty of Medicine may become candidates for the degree of Bachelor in Medical Science. Students who have undergone the recognised annual examinations in the Faculty of Medicine or of Sciences are exempt from oral examination in the subjects in which they have already been examined; provided that the examinations have been undergone not more than two years previously. Persons who produce diplomas or certificates giving evidence of their studies may be exempted from further examinations in the subjects in which they have already passed.

The following may become candidates for the degree of Doctor of Medicine: 1. Bachelors in Medical Science; 2. Persons who produce diplomas or certificates indicating that they have gone through an equivalent course of study. There are five examinations for the degree of Doctor of Medicine. *First Examination:* Human Anatomy and Histology; Physiology; Pathological Anatomy and General Pathology; a Necropsy, for which one hour is allowed; making an Anatomical Preparation, for which four hours are allowed. *Second Examination:* Medicine; Surgery; Operative Surgery; three Operations, and Application of Bandages. *Third Examination:* Hygiene; Therapeutics; Materia Medica and Phar-

macology; Legal Medicine; a Medico-Legal Report on a real or supposed case, for which one hour is allowed. *Fourth Examination:* Clinical Examination of two medical and two surgical patients and of one case of labour (fifteen minutes being allowed for each case); Obstetrics, with operations on the mannikin; Discussion on each Clinical Case; Written Commentary on a Medical and a Surgical Case, two hours being allowed. *Fifth Examination:* Defence of a Printed Dissertation, in the French language, on a subject in medical science chosen by the candidate, and previously communicated to the Faculty.

The examinations are public. Those for the degree of Bachelor are held at the beginning and end of the University year, and in the interval between the sessions. Application for admission must be made to the Dean of Faculty of Medicine eight days before the day of examination. The examinations for the degree of Doctor take place, on the demand of the candidates, at times determined by the Faculty.

Before being admitted to examination, each candidate pays to the beadle 40 francs; and after the last examination, 100 francs must be paid to the Faculty of Medicine. In case of unsatisfactory examination, half of the first fee is returned, and the second is not paid.

UNIVERSITY OF ZURICH.

THE following are the regulations for the degree of Doctor of Medicine.

1. In order to obtain the degree of Doctor of Medicine, the candidate must send to the Dean a written memorial, accompanied by (a) evidence of attendance on lectures of Physics, Chemistry, Botany, Zoology, and Medical Subjects; (b) a dissertation on some subject in medical science, which, after approval, the candidate must have printed at his own expense.

2. The dissertation is delivered by the Dean for examination to the teacher of the subject of which it treats, or to the member of the Faculty at whose suggestion it has been composed. A recommendatory opinion of the first examiner decides its acceptance; in this case, his name appears on the title when it is printed. If the first opinion be doubtful or unfavourable, the thesis must be circulated among all the members of the Faculty, and is only accepted if two-thirds of them give their written votes in its favour.

3. When the dissertation is approved, the candidate is admitted to examination for the degree. The first part is written, and the candidate has to answer two questions drawn by lot, one on Anatomy and Physiology, the other on Pathology and Therapeutics, Surgery, or Midwifery. The answers are circulated among the members of the Faculty, who, after examining them, express in writing their determination (by a simple majority) whether the candidate shall be admitted to the second (oral) examination. The oral examination comprises the above-named subjects, and also General Anatomy, Pathological Anatomy, Materia Medica, and Ophthalmic Medicine. The votes of two-thirds of the members of the Faculty present is necessary for the passing of this examination.

4. After the examination has been passed and two hundred printed copies of the dissertation have been delivered, an official diploma is delivered in dupli-

cate to the candidate; all other ceremonies are dispensed with.

5. The fee consists of 350 francs (£14), and 15 francs to the bedell; it is paid before the oral examination (if this be remitted, before graduation). There is no additional fee if it be necessary to repeat the examination. The fee is not returned if the candidate be definitely rejected. The sum of 100 francs is remitted to candidates who already possess a recognised diploma; and, in such cases, the Faculty may, by a majority of two-thirds, agree to omit the oral examination.

6. The Faculty has the power of granting the diploma of doctor *honoris causâ* for distinguished services to medicine.

The Medical Faculty consists of the following Professors, with several *doctores*: *Ordinary Professors*: H. Meyer, Human Anatomy; H. Frey, Comparative Anatomy, and Zoology; U. Krönlein, Surgery and Clinical Surgery; L. Hermann, Physiology; E. Klebs, Pathology; C. Huguénin, Medicine; F. Horner, Ophthalmic Surgery; O. Wyss, Diseases of Children; E. Frankenhäuser, Obstetrics and Gynaecology; A. Forel, Mental Diseases. *Extraordinary Professor*: H. Spöndly, Obstetric Medicine. Lectures are given in the Philosophical Faculty by *Ordinary Professors*: V. Merz, Chemistry; C. Cramer, Botany. *Extraordinary Professors*: J. R. Hofmeister, Experimental Physics; A. Dodelport, Chemistry. A Hospital, Lying-in Hospital, Children's Hospital, Pathological, Physiological, and Chemical Laboratories, are connected with the University.

THE LICENCE TO PRACTISE MEDICINE.

The following are the regulations for the licence to practise medicine in Switzerland. One licensing body examines at Geneva, and the other at Basle, Berne, and Zürich; both have the same regulations, and grant the licence to practise in all parts of the republic.

There are two examinations, preliminary and final. At Geneva, candidates are admitted to the preliminary examination on producing one of the following certificates: 1. Bachelier ès lettres; 2. Bachelier ès sciences; 3. Certificates of having passed two examinations in the Section of Philosophy at Geneva, and of having previously taken not less than twenty hours per week of studies; 4. Certificates of foreign studies at the Classical Section of the Gymnasium at Geneva; 5. Certificates of foreign studies equivalent to those named above. At the Amalgamated Board of Basle, Berne, and Zürich, candidates must produce evidence of complete and satisfactory studies in a public school; and of attendance on courses of Anatomy, Chemistry, Physics, Physiology, Practical Physiology, and six months' work in a Chemical Laboratory.

The examination is written and oral. The written part consists in producing two dissertations, one in Physics or Chemistry, the other in Anatomy or Physiology. The oral examination comprises Botany, Zoology, and Comparative Anatomy, Physics, Anatomy, and Physiology. At Geneva, candidates who have passed this examination are entitled to the designation of Bachelor of Medical Science.

In order to be admitted to the Final Examination for the Licence, candidates at Geneva must produce the certificate of Bachelor of Medical Science, and

diplomas and certificates obtained after equivalent studies and examinations elsewhere. At the other Board, they must produce evidence of having passed the Preliminary Examination, and of having attended the following academic courses: Pathological Anatomy, Medicine, Practical Surgery and Bandaging (six months), Clinical Medicine and Clinical Surgery (each three sessions), Clinical Midwifery (two sessions), and Clinical Ophthalmic Medicine (one session).

The examination is written, practical, and oral. The written and practical part consists of—1. Examination of two Medical and two Surgical cases, and one of Midwifery, in the presence of two examiners; 2. Written opinion of one of two Medical and two Surgical cases; 3. A *post mortem* Examination, and opinion on the same; 4. Performance of two Operations: one the tying of an artery; the other according to the judgment of the examiners. The *viva voce* examination comprises: 1. General Pathology and Pathological Anatomy; 2. Special Pathology and Therapeutics; 3. Hygiene; 4. Pharmacology; 5. Surgery; 6. Topographical Anatomy, with Operations; 7. Ophthalmology; 8. Midwifery; 9. Ordinary Medical Practice.

DENMARK.

MEDICAL EDUCATION AND GRADUATION.

THE study of Medicine at the University of Copenhagen is open to any student who has matriculated there or in foreign Universities; but only Danish subjects can obtain through examination the right to practise as medical men in the country.

The course of study is divided into three parts, namely, an introductory and two principal courses.

1. The introductory part consists of Botany (with especial regard to medicinal plants), Physics, Zoology, and Chemistry, theoretical and practical. The student has to submit to a preliminary examination on these subjects, and he can then enter as a pupil of one of the hospitals, where he must attend in a fixed order, and for a certain time, the various wards.

2. The second course comprises Anatomy, Physiology, Pharmacology, and Dissections, in which the student has to submit to an examination.

3. The final course consists of the following: Theoretical Surgery, Clinical Surgery, Operative Surgery, Theory of Medicine, Clinical Medicine, Pathological Anatomy, General Pathology, Forensic Medicine, and Obstetric Medicine. The student is examined on these subjects, and has to present a written thesis in Medicine, and one on Surgery. Before the student can pass his examination in this concluding course, he must present a certificate showing that he has gone through a half-yearly Clinical course of study under the chief Physicians at the hospital in Surgery, Medicine, Skin-Diseases, and Syphilis; and a shorter course at the Lying-in Institution in Obstetrics and Diseases of Children.

When these examinations are taken, the obligatory course of study is concluded by a residence at the Lying-in Institution, in order to obtain a practical knowledge of operations in cases of abnormal labours. The candidate who has passed his examination has now a right to practise medicine; but

the majority of candidates, before commencing to practise, endeavour to obtain an appointment at one of the hospitals, where they do duty during two years in a subordinate position. The entire course of study generally covers a period of from six to seven years.

In order to obtain the degree of Doctor of Medicine, the candidate has to prepare and submit to the Medical Faculty a treatise on a medical subject chosen by himself. If it be accepted by the Faculty, it is printed, and must be defended by the author publicly at the University, when at least two professors of the Medical Faculty appear as opponents. At most only about 10 per cent. of the medical men in Denmark endeavour to obtain this degree.

Among other means for aiding the labours of the student at the University are: The Botanical Gardens, a Zoological Museum, a Chemical Laboratory, a Collection of Physical Instruments, an Anatomical Museum, Dissecting Rooms (Physiological Collection and Laboratory), Pharmacological Collection, Collection of Surgical Instruments, Pathological Museum, the Copenhagen hospitals and the Lying-in Institution.

No entrance fees are demanded, and all the lectures are free to the students. The fees payable in respect of the several examinations amount in all to 60 *kroner* (about £3 10s.). The expenses in connection with obtaining the degree of Doctor of Medicine amount to 160 *kroner* (about £9).

Ten professors are attached to the University, namely: two in Medicine (Theoretical and Clinical), two in Surgery (Theoretical and Clinical), one in Pathological Anatomy, one in Obstetric Medicine and Diseases of Women and Children, one in Normal Anatomy, one in Physiology, one in Pharmacology and Materia Medica, one in Forensic Medicine, Hygiene, and Psychiatry, besides a permanent *docent* for Syphilis and Skin-Diseases.

In addition, lectures are given by the chief physicians attached to the various wards of the hospitals. Six of the professors of the University act as chief physicians in the Copenhagen hospitals.

SWEDEN.

MEDICAL EDUCATION.

THERE are three medical institutions in Sweden which confer licences to practise, viz., in the Universities of Upsala and Lund, and the Karolina Medico-Chirurgical Institute or Academy of Medicine in Stockholm. The Universities also confer the degree of Doctor of Medicine. A Medical School, with professors of the various branches of medical science, is connected with each.

The three institutions possess museums of normal and pathological anatomy, collections of chemical and pharmaceutical preparations and drugs, of surgical and obstetric instruments, physiological and pathological laboratories, &c.

Upsala possesses a hospital of 150 beds, which is entirely at the disposal of the University for the purpose of clinical teaching. The professors of medicine and surgery are *ex officio* medical officers of the hospital. Of the 150 beds, 100 or a few more are generally occupied, and are divided among medical, surgical, syphilitic, and obstetric cases.

In Lund, clinical instruction is given in the State Hospital and also in the University Hospital. In the latter there are 80 beds for medical and 80 for surgical cases, with 67 beds in the syphilitic and 8 in the obstetric departments. Of these, 40 beds in the medical and 40 in the surgical department are appropriated to clinical instruction. The obstetric department is also clinical. Clinical instruction in the diseases of the eye is also given.

In Stockholm, the pupils of the Karolina Institution receive clinical instruction at the Seraphim Hospital, the Children's and Lying-in Hospitals, the Town and State Lock Hospital, and the Lunatic Asylum at Konradsberg.

At the Seraphim Hospital, there are two medical and two surgical wards, under the charge of the ordinary and adjunct professors of medicine and surgery; and also a small gynæcological ward. It contains about 300 beds. An ophthalmic clinic is comprised in the surgical department; and the gynæcological clinic is attached to the medical.

The Lying-in Hospital or Obstetric Clinic can accommodate 30 patients; 20 beds are generally occupied. The professor of obstetrics in the Karolina Institution is *ex officio* chief physician.

The whole of the cases in the General Orphan Hospital are available for clinical instruction. The daily number of infants under one year old in the institution is from 100 to 200; sometimes it has been as high as 240. Of these 10 or 12 per cent. are generally on the sick-list. There are also about 80 children between one and fifteen years of age. In addition, from 1,600 to 2,000 are attended yearly as out-patients. Clinical instruction is given by the professor of diseases of children for eight months in the year, and four months by his adjunct.

The Town and State Lock Hospital has 180 beds, of which, on an average, 140 are occupied daily.

The Hospital for the Insane at Konradsberg has 220 beds, which are all available for clinical instruction. The professor of psychological medicine in the Karolina Institute is the chief physician.

LICENCE AND DEGREE IN MEDICINE.

No one can practise medicine in Sweden who has not obtained a licence from one of the three boards. The examinations for the licence consist of two parts. The first, for the Diploma of Candidate in Medicine (analogous to *Officier de Santé* in France), embraces Anatomy, Physiology, Medical Chemistry, Pharmacology, General Pathology, and History of Medicine. The candidate must, after passing the maturity examination on leaving a lyceum, have undergone a preliminary (medico-philosophical) examination in Botany, Zoology, Chemistry, and Physics, or have passed an examination as candidate in Philosophy. He must also have followed the practical laboratory courses of Chemistry, Physiology, and normal and morbid Anatomy. The examination for the licence comprises Medicine, Diseases of Children, Surgery, Obstetrics and Gynæcology, Pathological Anatomy, and Forensic Medicine. The candidate must have passed the examination for Candidate in Medicine, and must subsequently have attended the clinics of Medicine, Surgery, Obstetric Medicine, Diseases of Children, Syphilis, and Diseases of the Mind; and must have obtained a competent knowledge of Pharmacy. Attendance on oral lectures is not obligatory.

The degree of Doctor of Medicine is conferred by the Universities of Lund and Upsala on Licentiates of those Universities and of the Academy at Stockholm, on their presenting and defending a thesis. Attendance on lectures is obligatory for the Degree.

NORWAY.

MEDICAL EDUCATION.

IN the University of Christiania, which is the only School of Medicine in Norway, lectures are delivered on the following subjects: Surgery, Ophthalmic Surgery, Physiology, Midwifery and Diseases of Women and Children, Descriptive Anatomy, Forensic Medicine, Pathology, and Therapeutics, Hygiene, Materia Medica, General Pathology and Pathological Anatomy, Surgical Pathology, Zoology, and Chemistry. Clinical instruction is given in the General Hospital on Surgery, Ophthalmic Surgery, Medicine, Diseases of the Skin and Syphilis; at the Lying-in and Children's Hospital, on the Diseases of Women and Children; at the Ganstead Asylum and at the Christiania Lunatic Asylum, on Mental Diseases; and in the Town Hospital, on Chronic Diseases. Practical instruction is also given in Chemistry, Anatomy, and Botany.

LICENCES AND DEGREES.

Before entering on the study of medicine, the candidate has to pass two preliminary examinations: one in Arts, including Norwegian, Latin, Greek, French, German, English, Mathematics, Geography, and History; and one in Philosophy, including Geometry, Zoology, Botany, Astronomy, and the elements of Chemistry and Physics. Having passed these, he is admitted to matriculation, and afterwards studies Medicine nearly seven years.

There are three professional examinations. The first is held two and a half years after Matriculation, in Anatomy, Dissections, the use of the Microscope, Physiology, and Medical Physics. The second, held three and a half years after the first, includes Pharmacology, Toxicology, Medicine, Therapeutics, General Pathology, Pathological Anatomy, Surgery, Ophthalmic Surgery, Skin-Diseases, and Syphilis. The third examination, held about a year after the second, comprises Surgical Anatomy, Surgery, Operative Surgery, Obstetrics and Gynecology, Diseases of Children, Forensic Medicine, Hygiene, and a Practical Examination in Medicine and Surgery. Practical work in the Hospital Wards is also obligatory.

On passing the final examination, the candidate becomes a physician, and obtains the right to practise. To obtain the degree of Doctor, he must pass a further examination, and defend a thesis.

HOLLAND.

DEGREE OF DOCTOR OF MEDICINE.

THE degree of Doctor of Medicine is granted in Holland by the Universities of Groningen, Leyden, and Utrecht. Candidates for matriculation must produce evidence of gymnasial maturity, or undergo an equivalent examination. The course of study,

including laboratory work and hospital practice, extends over six years. The final examination embraces all the subjects of medical study and the presentation and defence of a thesis. The degree does not grant a licence to practise.

STATE EXAMINATION.

This examination is conducted by eight professors, appointed annually and paid by the Government. The applicant for admission must be a Doctor of Medicine of some University, or possess a certificate of gymnasial maturity, or pass a preliminary literary and philosophical examination. The course of medical study must extend over at least six terms. The medical examination includes General and Special Pathology, Pharmacology, Morbid Anatomy, Medical Jurisprudence, Clinical Medicine, Clinical Surgery, and Obstetrics.

BELGIUM.

GRADUATION IN MEDICINE.

DEGREES in Medicine are granted by the Universities of Brussels, Ghent, Liège, and Louvain. The Universities of Brussels and Louvain confer only scientific titles, without licence to practise; the degrees of the other two, when legalised by a Government commission, give the right of practice in Belgium.

UNIVERSITY OF BRUSSELS.

By the regulations of the University of Brussels, British and other medical practitioners, provided with proper qualifications, are admitted to examination before the Faculty for the degree of M.D. Residence is not required from such as are unable to absent themselves long by reason of their professional occupations.

Candidates must come in person and have their names inscribed in the books of the University. The fees are for inscription of name, 215 fr. (£8 12s.); for examination, 315 fr. (£12 12s.); for registration of diploma, 10 fr. (8s.); total, 540 fr. (£21 12s.). The examination consists of three parts. 1. General Therapeutics, including Pharmacodynamics (proportions of doses), Special Pathology and Therapeutics of Internal Diseases, General Pathology, and Pathological Anatomy. 2. Surgical Pathology, Ophthalmic Surgery, Theory of Midwifery, Public and Private Hygiene, Medical Jurisprudence. Examination at the Hospital of one or two patients under medical and Surgical Treatment; Examination in Midwifery, consisting in Obstetrical Operations on the *mannequin* (model of pelvis); Examination in Operative Surgery, consisting of some of the usual operations on the dead subject, such as amputation, ligature of an artery, &c.

Great importance is attached to practical knowledge, but candidates must also prove that they possess positive theoretical science.

Examinations take place at any time between October 15 and June 20, except during Christmas and Easter. They are *ad valorem* and written, but candidates may be exempted from the former, and confine themselves to the written tests by paying an additional fee of £1 for each test. Candidates must exhibit their qualifications or diplomas.

The three examinations may be got through in a week, allowing a day's interval between each two tests. Saturday is the most eligible day for arriving for candidates for whom time is an object. The delay of a week is, however, never exceeded by more than a day or two.

The examinations are conducted in English through the medium of an interpreter, for such candidates as are not familiar with the French language.

Candidates who are not foreign qualified medical men must undergo the above-mentioned examinations, and also an examination in Anatomy, Physiology, and Histology, and must produce a degree in Arts or Science from a recognised University, or pass a preliminary examination; they must also have attended for five years the lectures in a medical college, or for three years the medical and surgical practice of a hospital.

UNIVERSITY OF GHENT.

A CANDIDATE for matriculation at this University must be a graduate in Arts of some University, or must pass a preliminary examination. He must then attend for two years a scientific course, including Psychology, Chemistry, Physics, Botany, Zoology, and Mineralogy, and at the end of the time pass an examination in these subjects. After this, he must attend lectures for five years, and hospital practice for three years.

The following examinations must be passed: 1. At the end of the second year of medical study, in Descriptive Anatomy, Histology, Physiology, Pharmacology, and Comparative Anatomy; 2. At the end of the fourth year, in General Pathology, Therapeutics, Theory and Practice of Medicine, and Morbid Anatomy; 3. At the end of the fifth year, in Theory and Practice of Surgery and in Obstetrics. The final examination for the Doctorate includes the general subjects of medical study, with practical examinations in Clinical Medicine, Clinical Surgery, Obstetrics, and Operative Surgery. Candidates who have attended the requisite lectures and hospital practice elsewhere are admitted to the final examination if they possess a degree in Arts or pass the matriculation examination of the University.

UNIVERSITY OF LIÈGE.

THE University grants a degree in Medicine, Surgery, and Midwifery, which can only be obtained after passing three examinations, in the French language, in natural sciences and medical subjects.

The first examination includes the following subjects: General Chemistry, Logic, Psychology, Moral Philosophy, Experimental Physics, Elements of Zoology, Elements of Botany (comprising the medical category), Elementary Geology and Mineralogy. This is called the examination for candidates in natural sciences.

The second examination, which is for candidates in medicine, includes Elements of Comparative Anatomy, Descriptive and Regional Anatomy, Human Physiology, and Pharmacology.

The third examination, which, when successfully passed, entitles the candidate to the Doctorate, includes the following subjects, viz., General Pathology, Pathological Anatomy, Special Pathology and Therapeutics, Mental Maladies, General Therapeutics, Surgical Pathology and Ophthalmology, Theory and Practice of Midwifery (including operations), Public

Hygiene, Legal Medicine, Clinical Medicine, Clinical Surgery, Surgical Operations.

The fees are—for the first examination, 80 fr.; second, 40 fr.; doctor in medicine, 240 fr.; total, 300 fr., or about 15*l*.

UNIVERSITY OF LOUVAIN.

THIS University, before granting the usual degree, insists upon compliance with the following conditions, viz.: 1. An examination in one group (or branch) of the sciences, Mathematics, Physico-chemistry, or Natural Sciences; 2. An examination upon all medical subjects, in the French language.

Candidates for the degree of Doctor must have studied medicine five years at a recognised medical college or university, and have attended hospital practice for three years, at a recognised hospital.

The University of Louvain consists of several colleges, and the buildings of the Halles, and contains a library of 70,000 volumes.

ITALY.

THE Italian universities at which degrees in medicine are granted are the Royal Universities of Bologna, Cagliari, Catania, Genoa, Messina, Modena, Naples, Padua, Palermo, Parma, Pisa, Rome, Sassari, Siena, and Turin; the free Universities of Camerino and Perugia; and the Royal Institute for Superior Studies at Florence. There is also a preparatory School of Medicine at Ferrara.

The regulations for Graduation in Medicine in the Universities of Italy are as follows.

1. The Medico-Chirurgical Faculty has the duty of giving instruction in all subjects relating to medicine and surgery, promoting the cultivation of all that is known in that field, and qualifying for the exercise of the medical profession in its various branches.
2. The course of medical and surgical study extends over six years, at the end of which free licence to practise is granted.
3. The following courses of instruction are obligatory: General Chemistry, Organic and Inorganic; Botany; Zoology, with Comparative Anatomy and Physiology; Experimental Physics; Normal Human Anatomy (*i.e.* Histology, Descriptive and Topographic Anatomy, and Dissection); Human Physiology; General Pathology; Pathological Anatomy (demonstrations and exercises); *Materia Medica* and Experimental Pharmacology; Special Medical Pathology (or Principles and Practice of Medicine); Special Surgical Pathology (Surgery); Clinical Medicine and Exercises in Semiotics; Clinical and Operative Surgery; Theory and Practice of Ophthalmic Surgery; Theory and Practice of Diseases of the Skin and Syphilis; Midwifery and Clinical Midwifery; Forensic Medicine and Public Hygiene; Theoretical and Clinical Psychiatry (where opportunities exist).
4. The obligatory courses must each be attended one year; except Pathological Anatomy, of which two years are required, and Human Anatomy and Clinical Medicine and Surgery, each three years.
5. The following courses are non-obligatory or complementary; Medical Chemistry; Experimental Toxicology; Critical History of Medicine.
6. Besides these, other free courses may also be given.
7. There shall be three biennial examinations in the Faculty of Medicine; the first for 'promotion';

the second for 'licence'; the third for the degree of 'laureate', with a diploma conferring full licence to practise. 8. In the Universities of Pisa and Siena the licentiate shall have the title of laureate of the first stage (*laurea di primo grado*). 9. In order to be admitted to the first examination (*promozione*) the candidate must have been a student at the University at least two years, and have diligently attended the Courses of Chemistry, Botany, Zoology, Comparative Anatomy and Physiology, Experimental Physics, Human Anatomy, and any subjects of instruction that he may choose, so as to make up eighteen hours of instruction per week. 10. The subjects of examination shall be Chemistry, Botany, Zoology, Comparative Anatomy and Physiology, and Experimental Physics. The Examining Board shall consist of the official teachers of the subjects of examination, with one or two additional examiners not belonging to the teaching body. On the proposal of the Faculty, and with the consent of the Minister, the examination for promotion may be divided into two parts, one to be held at the end of the first year, and the other at the end of the second year. At the beginning of each scholastic year, the Faculty shall determine what courses are to be followed and when. 11. The candidate for admission to the several examinations (licence) must have passed the first examination, have attended the University during two other years, and have diligently attended courses of Human Anatomy and Physiology, General Pathology, Practical Pathological Anatomy, Materia Medica and Experimental Pharmacology, Special Medical Pathology, Special Surgical Pathology, Clinical Medicine, and Clinical Surgery. 12. The Examining Board shall be composed of the official teachers of the subjects mentioned, with one or two assessors not belonging to the teaching body. The examination shall be oral, and practical as regards Human Anatomy and Materia Medica. 13. A candidate for admission to the third examination (*laurea*) must have passed the second examination, have subsequently been a student at the University during two years, and have diligently attended the courses of Clinical Dermatology and Syphilology, Clinical Ophthalmic Surgery, Midwifery and Clinical Midwifery, Clinical Psychiatry, Exercises in Pathological Anatomy, Clinical Medicine and Surgery, Operative Surgery, Forensic Medicine and Hygiene, and voluntary courses so as to make up eighteen hours of instruction each week. 14. The candidate has to undergo an examination on the dead body and two clinical examinations. 15. The examination on the dead body shall be conducted by a sub-committee consisting of all the professors of Operative Surgery, Pathological Anatomy, and Forensic Medicine, with one or two assessors not belonging to the official teaching body. 16. In this examination, the candidate will perform on the dead body a surgical operation, the nature of which will be decided by lot from a series prepared by the sub-committee. He will also perform a necropsy, and draw up a description of the appearances seen. Finally, he will answer the questions put to him by the examiners, and especially on the results of the necropsy, which are asked by the professor of forensic medicine. 17. The first clinical examination will be conducted in the presence of a sub-committee consisting of the professors of Clinical Dermatology and Syphilology, Clinical Obstetrics, Clinical Psychiatry, Clinical Ophthalmology, and Forensic Medicine, with one or two extra-professional assessors. 18. In

this examination the candidate will examine four cases of diseases selected from the four special classes which have not previously been examined or treated in the clinical wards, and will give his opinion on the diagnosis, prognosis, and treatment. He will afterwards answer the questions and observations of the examiners, and especially will reply to the questions put by the professor of Forensic Medicine on the obstetric and psychological cases. 19. The several clinical examinations shall be conducted in the presence of a sub-committee, consisting of the Professors of Clinical Medicine, Clinical Surgery, Medicine, Surgery, and Forensic Medicine, with one or two extra-professional assessors. 20. The candidate shall examine, in the presence of the sub-committee, four patients, two medical and two surgical, who have not yet been examined or treated in the wards, and shall write a description of the cases. He shall, finally, answer the questions asked by the examiners. 21. A student must have passed each stage of the third examination before he can be admitted to the next stage. 22. In each examination, a student rejected in one subject alone may present himself for examination in this subject only on a future occasion: but if he be rejected in two or more subjects, the whole examination must be repeated. 23. The three stages of the third examination having been passed, the three sub-committees unite to form a committee, presided over by the President of the Faculty, and will judge of the merits of the candidates. The successful candidates will be declared doctors in medicine and surgery, and the president will refer them to the Rector, in order that they may receive the diploma of laureate.

Foreigners desirous of obtaining medical degrees in Italian Universities must produce a diploma or degree obtained at some noted foreign university, and must at the same time produce satisfactory proof that they have actually gone through all the studies and passed the examinations required for that degree. They must also pass the ordinary examinations for the medical degree, and pay the respective fees. The examinations are usually conducted in the Italian or the Latin language.

UNITED STATES OF AMERICA.

THE United States possess a very large number of institutions empowered by charter to grant the degree of doctor of medicine; these being, in some instances, special colleges and schools of medicine and surgery, and in others the medical departments of Universities. The subjoined is a list of them.

Alabama.—Medical College of Alabama (Mobile).

Arkansas.—Medical Department of Arkansas, Industrial University (Little Rock).

California.—Medical College of the Pacific (University College) (San Francisco); Medical Department of the University of California (San Francisco).

Connecticut.—Medical Department of Yale College (New Haven).

District of Columbia.—National Medical College, Columbian University (Washington); Medical Department of Georgetown University (Washington); Medical Department of Howard University (Washington).

Georgia.—Medical College of Georgia (Augusta);

Savannah Medical College : Atlanta Medical College : Southern Medical College (Atlanta).

Illinois.—Rush Medical College (Chicago) : Chicago Medical College, Medical Department of North-Western University : Women's Medical College (Chicago).

Indiana.—Medical College of Evansville : Indiana Medical College (Indianapolis) : Medical College of Fort Wayne.

Iowa.—College of Physicians and Surgeons (Keokuk) : Medical Department of the State University (Iowa City).

Kentucky.—Medical Department of the University of Louisville : Kentucky School of Medicine (Louisville) : Louisville Medical College : Hospital College of Medicine, Medical Department of Central University (Louisville).

Louisiana.—Medical Department of the University of Louisiana (New Orleans).

Maine.—Bowdoin College and Medical School of Maine.

Maryland.—University of Maryland (Baltimore) : College of Physicians and Surgeons (Baltimore).

Massachusetts.—Harvard University (Boston).

Michigan.—Department of Medicine and Surgery : University of Michigan (Ann Arbor) : Detroit Medical College.

Missouri.—Medical College of the University of Missouri : Missouri Medical College (St. Louis) : St. Louis Medical College : St. Joseph Hospital Medical College : Kansas City College of Physicians and Surgeons.

New Hampshire.—Medical School of Dartmouth College (Hanover).

New York.—College of Physicians and Surgeons of the City of New York : Albany Medical College : Medical Department of the University of the City of New York : Medical Department of the University of Buffalo : Long Island College Hospital (Brooklyn) : Bellevue Hospital Medical College (New York) : College of Medicine of Syracuse University : Women's Medical College (New York).

North Carolina.—Medical School (University of North Carolina).

Ohio.—Medical College of Ohio (Cincinnati) : Columbus Medical College : Starling Medical College (Columbus) : Cleveland Medical College : Cincinnati College of Medicine and Surgery : Miami Medical College (Cincinnati) : Medical Department of Wooster University (Cleveland).

Oregon.—Williamette University (Portland).

Pennsylvania.—Medical Department of the University of Pennsylvania (Philadelphia) : Jefferson Medical College (Philadelphia) : Women's Medical College (Philadelphia).

South Carolina.—Medical College of the State of South Carolina (Charleston).

Tennessee.—Medical Department of the University of Nashville : Medical Department of Vanderbilt University (Nashville) : Medical Department of Central Tennessee College (Nashville) : Nashville Medical College (University of Tennessee).

Texas.—Texas Medical College and Hospital (Galveston).

Vermont.—Medical Department of the University of Vermont.

Virginia.—Medical Department of the University of Virginia (Charlottesville) : Medical College of Virginia (Richmond).

HARVARD UNIVERSITY, BOSTON.

THE following are the professors and teachers in the Medical Department :—Dr. Charles W. Eliot (President) : Dr. Calvin Ellis (Clinical Medicine) : Dr. Oliver W. Holmes (Anatomy—*Emeritus*) : Dr. T. Dwight (Anatomy) : Dr. Henry J. Bigelow (Surgery—*Emeritus*) : Dr. Francis Minot (Theory and Practice of Physics) : Dr. John P. Reynolds (Obstetrics) : Dr. Henry W. Williams (Ophthalmology) : Dr. David W. Cheever (Clinical Surgery) : Dr. James C. White (Dermatology) : Dr. Robert T. Edes (Materia Medica) : Dr. Henry P. Bowditch (Physiology) : Dr. Charles F. Folsom (Assistant, Mental Diseases) : Dr. Frederick I. Knight (Assistant, Laryngology) : Dr. Charles B. Porter (Assistant, Surgery) : Dr. J. Collins Warren (Assistant, Surgery) : Dr. Reginald H. Fitz (Pathological Anatomy) : Dr. William L. Richardson (Assistant, Obstetrics) : Dr. Edward S. Wood (Chemistry) : Dr. William H. Baker (Assistant, Gynecology). Other instructors are :—Dr. William B. Hills (Instructor of Chemistry) : Dr. F. W. Draper (Lecturer on Forensic Medicine) : Dr. H. P. Quincy (Assistant in Histology) : Dr. E. N. Whittier (Instructor in the Theory and Practice of Physic) : Dr. F. A. Harris (Demonstrator of Medico-Legal Examinations) : Dr. W. P. Bolles (Instructor in Materia Medica) : Dr. E. H. Bradford (Assistant in Clinical Surgery) : Dr. W. S. Bigelow (Assistant in Surgery) : Dr. F. H. Davenport (Assistant in Gynecology) : Dr. G. M. Garland (Assistant in Clinical Medicine) : Dr. J. W. Warren (Assistant in Physiology) : Dr. M. H. Richardson (Demonstrator of Anatomy) : Dr. W. W. Gannet (Assistant in Pathological Anatomy) : Dr. C. S. Minot (Lecturer on Embryology) : Dr. W. C. Emerson (Assistant in Chemistry) : Dr. W. J. Otis (Assistant in Anatomy) : Dr. Samuel J. Mixer (Assistant in Anatomy). The following gentlemen will give special clinical instruction :—Dr. John Homans (Diagnosis and Treatment of Ovarian Tumours) : Dr. Francis B. Greenough (Syphilis) : Dr. Oliver F. Wadsworth (Ophthalmoscopy) : Dr. J. Orne Green and Dr. Clarence J. Blake (Otology) : Dr. Amos L. Mason and Dr. Frederick C. Shattuck (in Auscultation) : Dr. J. P. Oliver and Dr. T. M. Rotch (Diseases of Children) : Dr. S. G. Webber and Dr. J. J. Putnam (Diseases of the Nervous System) : Dr. James R. Chadwick (Gynecology).

All candidates for admission who hold no degree in arts or science, must pass a written examination on entrance to this School, in English, Latin, Physics, and in any one of the following subjects : French, German, Elements of Algebra or of Plain Geometry, Botany.

Instruction is given by lectures, recitations, clinical teaching, and practical exercises, distributed throughout the academic year. The year begins Sept. 27, 1883, and ends on the last Wednesday in June 1884, and is divided into two equal terms.

Students are divided into four classes, according to their time of study and proficiency, and during their last year will receive largely increased opportunities of instruction in the special branches mentioned. Students who began their professional studies elsewhere may be admitted to advanced standing ; but all persons who apply for admission to the advanced classes must pass an examination in the branches already pursued by the class to which they seek admission.

The course of study recommended by the Faculty

covers four years, but until further notice the degree of Doctor of Medicine will continue to be given upon the completion of three years of study, to be as ample and full as heretofore. The degree of Doctor of Medicine *cum laude* will be given to candidates who have pursued a complete four years' course, and obtained an average of 75 per cent. upon all the examinations of this course. In addition to the ordinary degree of Doctor of Medicine as heretofore obtained, a certificate of attendance on the studies of the fourth year will be given to such students desiring it as shall have attended the course and have passed a satisfactory examination in the studies of the same.

The order of studies and examinations for the four years' course is as follows: *First Year*.—Anatomy, Physiology, and General Chemistry. *Second Year*.—Practical and Topographical Anatomy, Medical Chemistry, Materia Medica, Pathological Anatomy, Clinical Medicine, Surgery, and Clinical Surgery. *Third Year*.—Therapeutics, Obstetrics, Theory and Practice of Medicine, Clinical Medicine, Surgery, and Clinical Surgery. *Fourth Year*.—Ophthalmology, Otolaryngology, Syphilis, Laryngology, Mental Diseases, Diseases of the Nervous System, Diseases of Women, Diseases of Children, Obstetrics, Clinical and Operative Obstetrics, Clinical Medicine, Clinical and Operative Surgery, Hygiene, Forensic Medicine. The examinations are held in the following order: End of first year—Anatomy, Physiology, and General Chemistry. End of second year—Topographical Anatomy, Medical Chemistry, Materia Medica, and Pathological Anatomy. End of third year—Therapeutics, Obstetrics, Theory and Practice of Medicine, Surgery. End of fourth year—Ophthalmology, Otolaryngology, Syphilis, Laryngology, Mental Diseases, Diseases of the Nervous System, Diseases of Women, Diseases of Children, Obstetrics, Clinical and Operative Obstetrics, Clinical Medicine, Clinical and Operative Surgery, Hygiene, Forensic Medicine.

The order for the three years' course is as follows: *First Year*.—Anatomy, Physiology, and General Chemistry. *Second Year*.—Practical and Topographical Anatomy, Medical Chemistry, Materia Medica, Pathological Anatomy, Clinical Medicine, and Clinical Surgery. *Third Year*.—Therapeutics, Obstetrics, Theory of Practice of Medicine, Clinical Medicine, Surgery, Clinical Surgery, Ophthalmology, Dermatology, Syphilis, Otolaryngology, Mental Diseases, Diseases of the Nervous System, Diseases of Women, Diseases of Children, Hygiene, Forensic Medicine. Students following this course are classified as heretofore, and the instruction in the special branches is of the same character as that which has been given for several years. The examinations of the first two years are common to both groups of students. The final examinations at the close of the third year are in the following subjects: Therapeutics, Obstetrics, Surgery, and Clinical Surgery, Theory and Practice, Clinical Medicine.

Examinations in all subjects are also held before the opening of the School, beginning Sept. 26.

Every candidate for a degree must be twenty-one years of age; must have studied medicine three or four full years, have spent at least one continuous year at this School, have passed a written examination upon all the prescribed studies of the course taken, and have presented a thesis.

Course for Graduates.—For the purpose of affording to those already Graduates of Medicine addi-

tional facilities for pursuing clinical, laboratory, and other studies, in such subjects as may specially interest them, the Faculty has established a course which comprises, in addition to the list of special departments above stated, the following branches: Histology; Physiology; Medical Chemistry; Pathological Anatomy. On payment of the full fee the privilege of attending any of the other exercises of the Medical School, the use of the laboratories and library, and all other rights accorded by the University will be granted. Single branches may also be pursued. Graduates of other Medical Schools who may desire to obtain the degree of M.D. at this University will be admitted to examination for this degree after a year's study in the Graduates' Course. Examination on entrance is not required.

Fees.—The fees are: for Matriculation, 5 dollars; for the year, 200 dollars; for one term alone, 120 dollars; for Graduation, 30 dollars. For Graduates' course the fee for one year is 200 dollars; for one term, 120 dollars; and, for single courses, special fees. Payment is made in advance.

Students of regular standing in any one department of Harvard University have a right to attend lectures, recitations, and examinations in any other departments without paying additional fees.

UNIVERSITY OF PENNSYLVANIA.

THE Medical Department of this University is the oldest medical school in America, having been established in 1765 by Drs. John Morgan and William Shippen, on the plan of the University of Edinburgh, of which the founders were graduates. The following are the professors of the faculty as at present constituted:—Dr. W. Pepper, *Professor* of the University and *ex officio* President of the Faculty; Dr. H. H. Smith (Surgery)—*Emeritus*; Dr. Joseph Leidy (Anatomy); Dr. Richard A. F. Pearse (Obstetrics and Diseases of Women and Children); Dr. Alfred Stillé (Theory and Practice of Medicine, and Clinical Medicine); Dr. D. Hayes Agnew (Surgery and Clinical Surgery); Dr. William Pepper (Clinical Medicine); Dr. William Goodell (Clinical Gynecology); Dr. James Tyson (General Pathology and Morbid Anatomy); Dr. Horatio C. Wood (Materia Medica, Pharmacy, and General Therapeutics); Dr. Theodore G. Wormley (Chemistry); Dr. John Ashurst, jun. (Clinical Surgery); Dr. Harrison Allen (Physiology); also the following clinical professors of special subjects:—Dr. W. F. Norris (Diseases of the Eye); Dr. G. Strawbridge (Diseases of the Ear); Dr. L. A. Duhring (Diseases of the Skin).

The curriculum is arranged as follows:—*First Year*: Anatomy, Histology, Materia Medica and Pharmacy, General Chemistry, Physiology, General Pathology, General Clinics—Medical and Surgical. Final Examinations in General Chemistry, Materia Medica, and Pharmacy. *Second Year*: Anatomy, Topographical Anatomy, Medical Chemistry, Physiology, General Pathology and Morbid Anatomy, Therapeutics, Theory and Practice of Medicine, Surgery, Obstetrics, General Clinics—Medical and Surgical. Final examinations in Anatomy, Medical Chemistry, and Physiology. *Third Year*: General Pathology and Morbid Anatomy, Topographical Anatomy, Therapeutics, Theory and Practice of Medicine, Surgery, Obstetrics, Operative Surgery, Minor Surgery and Bandaging, Diseases of Women and Children; Gynecology, Bedside Instruction in Practical Medicine (including Physical Diagnosis),

Bedside Instruction in Practical Surgery, Practical Ophthalmology, Practical Otology, Practical Dermatology, Practical Electro-Therapeutics, General Clinics—Medical and Surgical. Special Clinics (Nervous Diseases, Diseases of Skin, Eye, Ear, Diseases of Women and Children). Final examinations for degree at the end of the course. General Pathology and Morbid Anatomy, Therapeutics, Theory and Practice of Medicine, Surgery, Obstetrics, and Diseases of Women and Children. Opportunities for practical work in the physiological laboratory will be afforded to those who desire them. A separate fee is charged.

No beneficiary students are received, nor students at reduced rates, except in the case of the six successful applicants for the scholarships created by the board of trustees. These are open to competitive examination. Candidates must furnish satisfactory evidence that they are without the means to defray the expenses of a medical education. They must also write a brief autobiography, which will serve as a test of their qualifications in orthography and grammar; and pass an examination in a Latin prose translation (first three books of *Cæsar*), and an examination in elementary physics. This examination is held annually in September.

The Faculty have established a post-graduate course, which embraces various special departments. The post-graduate instruction, for the year 1883-84, will be divided into five courses of six weeks each, commencing on Oct. 1, Nov. 12, Jan. 10, Feb. 21, and April 15. The teaching consists in bedside and dispensary lessons, the treatment, examination of patients, and the use of instruments of precision in the diagnosis and treatment of disease. The following subjects are taught practically and in limited classes at the hospitals and dispensaries to which the instructors are attached:—Clinical Medicine and Physical Diagnosis, by Professor Pepper and Dr. Bruen; Renal Diseases and Diabetes, with Practical Examination of Urine, by Professor Tyson; Nervous Diseases and Electro-Therapeutics, by Dr. Weir Mitchell and Dr. Sinkler; Clinical Surgery, by Professor Ashhurst; Ophthalmology, by Dr. Risley; Dermatology, by Professor Duhring; Otology, by Professor Strawbridge; Gynecology, by Dr. Baer; Operative Surgery, by Dr. White; Venereal Diseases, by Dr. White; Clinical and Operative Obstetrics, by Dr. Richardson; Laryngology, by Dr. Seiler; Diseases of Children, by Dr. Starr; Microscopy and Pathology, by Dr. Formad.

The Laboratory Building is a spacious building of four floors: the first being devoted to operative dentistry; the second and third are fitted up as chemical laboratories; while the fourth contains apartments for physiological, histological, and pathological investigation. There are also a pharmaceutical laboratory, and one of experimental therapeutics. The attendance of the students upon the laboratory courses is compulsory. Before commencing dissecting the student is obliged to attend the osteo-syndesmiological laboratory, in order to make himself familiar with the skeleton. The following are the requirements for graduation.

Students who have attended one course in a regular medical school (homœopathic and eclectic schools are not recognised) will be admitted as students of the second course in the University, after having satisfactorily passed an examination in General Chemistry and *Materia Medica* and Pharmacy. Students who have attended two courses in

a regular medical school will be admitted as students of the third course after having satisfactorily passed an examination in General and Medical Chemistry, *Materia Medica* and Pharmacy, Anatomy, and Physiology. Graduates of other regular medical schools in good standing will be admitted as students of the third course without an examination. Graduates of Colleges of Pharmacy and Dental Colleges in good standing are admitted to the second course without an examination.

The candidate for the degree of Doctor of Medicine must have attained the age of twenty-one years, and be of good moral character. He must have studied medicine for three years, and have attended at least his last course of instruction in this school, have prepared a satisfactory thesis, and have passed the required examinations. Candidates who have not been successful upon a first examination will be permitted to have a second before the June commencement. The commencement for conferring the degree of Doctor of Medicine is held on the 15th day of March, unless that day should fall on a Saturday or Sunday, when it is held on the preceding Friday. The degree will not be conferred upon a candidate who absents himself from the public commencement, except by special permission of the Medical Faculty.

The entire College expenses for the three years' course is 435 dollars, including matriculation and graduation fees.

JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

THE fifty-ninth Session of this College will begin on October 1, and continue till the end of March 1884. The lectures will be delivered by the following professors: Dr. Samuel D. Gross (Institutes and Practice of Surgery);—*Emeritus*; Dr. Ellerslie Wallace (Obstetrics and Diseases of Women and Children); Dr. Roberts Bartholow (*Materia Medica* and General Therapeutics); Dr. Henry C. Chapman (Institutes of Medicine and Medical Jurisprudence); Dr. J. M. Da Costa (Practice of Medicine); Dr. W. H. Pancoast (General, Descriptive, and Surgical Anatomy); Dr. Robert E. Rogers (Medical Chemistry and Toxicology); Dr. S. W. Gross (Principles of Surgery and Clinical Surgery); Dr. T. Parvin (Obstetrics and Gynecology); Dr. W. Thomson (Ophthalmology).

A spring course of Supplementary Lectures is given, beginning early in April and ending early in June. There is no additional charge for this course to matriculates of the College, except a registration fee of 5 dollars; non-matriculates pay 40 dollars, 35 of which is, however, credited on the amount of fees paid for the ensuing Winter Course.

To the usual instruction in medical schools, the Faculty of this college have added a thorough system of practical laboratory work. To each course of the regular curriculum there is appended a laboratory course, carried on in large and thoroughly equipped apartments in the college, by specially appointed Demonstrators, under the immediate direction of the Professor. In this way each candidate for the degree of M.D. is immediately and personally taught in obstetrics and gynecology, physical diagnosis, laryngology, ophthalmology, medical chemistry, pharmacy, *materia medica* and experimental therapeutics, physiology, histology and experimental

physiology, and minor surgery, bandaging, operations on the cadaver, &c.

In the department of medicine, clinical conferences and practical lessons in physical diagnosis give each student familiarity with all forms of disease. This course of instruction is *free of charge*, but *obligatory upon* candidates for the degree, except those who have had such instruction and those who are graduates of other colleges of ten years' standing.

A *Post Graduate Course*, very complete in all the details of instruction, has been organised for practitioners only.

Clinical Instruction is given throughout the year at the Hospital of Jefferson College, which accommodates 100 patients.

A candidate for the degree of M.D. must be of good moral character, and at least 21 years of age. He must have studied medicine for not less than three years, and have attended at least two full winter sessions of lectures, one of which must have been in this College. At least one course of Practical Anatomy and one of Clinical Instruction must have been attended; and he must present a thesis, of his own composition and in his own handwriting, on some medical subject.

No honorary degrees in medicine are granted by this College.

The *Fees* are: for a full Course, 140 dollars; Matriculation Fee (paid once only), 5 dollars; Practical Anatomy, 10 dollars; Graduation Fee, 30 dollars; for a full course of Lectures to those who have attended two full courses at other recognised Colleges, the Matriculation Fee and 70 dollars; to Graduates of other Colleges, of less than ten years, the Matriculation Fee and 50 dollars; to Graduates of ten years and upwards, the Matriculation Fee only.

COLLEGE OF PHYSICIANS AND SURGEONS OF NEW YORK.

THIS is otherwise known as the Medical Faculty of Columbia College. The instruction is given by the following professors, &c.: Dr. Alonzo Clark (Pathology and Practical Medicine); Dr. Willard Parker (Principles and Practice of Surgery)—*Emeritus*; Dr. J. G. Curtis (Physiology and Hygiene); Dr. T. M. Markoe (Principles of Surgery); Dr. T. Gaillard Thomas (Clinical Gynaecology); Dr. J. T. Metcalfe (Clinical Medicine)—*Emeritus*; Dr. H. B. Sands (Practice of Surgery); Dr. J. W. McLane (Obstetrics and the Diseases of Children); Dr. T. T. Sabine (Anatomy); Dr. C. E. Chandler (Chemistry and Medical Jurisprudence); Dr. E. Curtis (Materia Medica and Therapeutics); Dr. F. Delafield (Adjunct, Pathology, and Practical Medicine); Dr. Wm. Detmold (Military and Clinical Surgery)—*Emeritus*; Dr. W. H. Draper (Clinical Medicine); Dr. Cornelius R. Agnew (Diseases of the Eye and Ear); Dr. Abraham Jacobi (Clinical, Diseases of Children); Dr. Fessenden N. Otis (Clinical, Diseases of the Mind and Nervous System); Dr. G. M. Leferts (Clinical, Laryngoscopy and Diseases of the Throat); Dr. G. H. Fox (Clinical, Diseases of the Skin); Dr. Bull (Demonstrator of Anatomy); Dr. Prudden (Director of the Pathological Laboratory).

The Collegiate Year consists of a regular Winter Session, attendance upon which is required for the graduation. Tuition is by the following methods:

1. *Didactic Lectures*.—During the Session from two to six lectures are given daily by the Faculty. Attendance is obligatory.

2. *Clinical Teaching*.—Ten clinics, covering all departments of medicine and surgery, are held weekly throughout the entire year in the College Building. In addition, the Faculty give daily clinics at the larger City Hospitals and Dispensaries (such as the Bellevue Charity, New York, and Roosevelt Hospitals, the New York Eye and Ear Infirmary, the Women's Hospital, &c.) Attendance is optional.

3. *Recitations* are held daily. Attendance is optional.

Personal Instruction.—Personal instruction is given in Practical Anatomy, Experimental Physiology, Operative Surgery, Minor Surgery, Physical Diagnosis, Ophthalmology, Otology, Laryngoscopy, Normal and Pathological Histology, and the Examination of the urine. Attendance is optional, except upon Practical Anatomy.

Candidates for the Degree of Doctor of Medicine must have attended two full courses of lectures on Anatomy, Physiology, Chemistry, Materia Medica and Therapeutics, Obstetrics, Surgery, Pathology, and Practical Medicine; the second course must have been given in this College. Students are permitted—and are recommended—to complete the two full courses by attendance during three or more sessions, taking only certain branches in each session. Candidates must have studied Practical Anatomy during one winter session: have been engaged during three years in the study of medicine under a regular physician or surgeon; have attained the age of 21 years; and be of good moral character. Each candidate must present a thesis on some medical subject, and pass an examination in the seven branches of medical science above mentioned.

Students who have attended two courses of lectures (one being at this College) on Anatomy, Physiology, and Chemistry, may be examined on these subjects at the end of their second course; and the examination, if satisfactory, is accounted final.

Students and graduates of other schools are admitted under special regulations.

The fees are: Yearly matriculation, 5 dollars; Course of Lectures each Session, 140 dollars, or 20 dollars for each course; Practical Anatomy, 10 dollars, and graduation fee, 30 dollars.

UNIVERSITY OF THE CITY OF NEW YORK.

THE Professors in the Faculty of Medicine are: Dr. Alfred C. Post (Clinical Surgery)—*Emeritus*; Dr. Charles I. Pardee (Diseases of the Ear); Dr. John C. Draper (Chemistry); Dr. Alfred L. Loomis (Pathology and Practice of Medicine); Dr. W. Darling (Anatomy); Dr. W. H. Thomson (Materia Medica, Therapeutics, and Diseases of the Nervous System); Dr. J. W. S. Arnold (Physiology and Anatomy); Dr. J. Williston Wright (Surgery); Dr. Fanucci D. Weiss (Practical and Surgical Anatomy); Dr. W. H. Polk (Obstetrics and Diseases of Women and children); Dr. L. A. Stimson (Physiology and Physiological Chemistry); Dr. R. Withaus (Physiological Chemistry); Dr. Stephen Smith (Clinical Surgery); Dr. A. E. Macdonald (Medical Jurisprudence and Diseases of the Mind); Dr. H. Knapp (Ophthalmology); Dr. S. O. Vanderpoel (Public Hygiene). There are also five clinical lecturers; viz., Dr. Drake (Medicine); Dr. Shaffer (Ortho-

pædic Surgery); Dr. Morrow (Dermatology); Dr. Winters (Diseases of Children); and Dr. Jarvis (Laryngology). Dr. L. Johnson is Lecturer on Medical Botany.

The Collegiate Year is divided into three Sessions: a Preliminary Session, a Regular Winter Session, and a Spring Session.

The Preliminary Session will begin on Wednesday, September 19. It will be conducted on the same plan as the Regular Winter Session.

The Regular Winter Session will begin October 3, 1883, and end about the middle of March 1884. The Plan of Instruction consists of Didactic and Clinical Lectures, recitations, and laboratory work in all subjects in which it is practicable. To put the laboratories on a proper footing a new building has been erected at an expense of 35,000 dollars. It will contain laboratories fitted for instruction in Chemistry, Histology, Pathology, *Materia Medica*, Operative Surgery, and Gynecology.

Two to five Didactic Lectures, and two or more Clinical Lectures, will be given each day by members of the Faculty. In addition to the ordinary clinics, special clinical instruction, without additional expense, will be given to the candidates for graduation during the latter part of the Regular Session. For this purpose the candidates will be divided into sections of twenty-five members each. At these special clinics students will have excellent opportunities to make and verify diagnoses, and watch the effect of treatment. They will be held in the Wards of the Hospitals and at the Public and College Dispensaries.

Each of the seven Professors of Chemistry, Medicine, Anatomy, *Materia Medica*, Physiology, Surgery, and Obstetrics, will in one evening in each week conduct a recitation on his subject. Students are thus enabled to make up for lost lectures and prepare themselves properly for their final examinations without additional expense.

The Spring Session will begin about the middle of March and end the last week in May. The daily Clinics and Special Practical Courses will be the same as in the Winter Session, and there will be Lectures on Special Subjects by the Members of the Faculty. It is supplementary to the Regular Winter Session. Nine months of continued instruction are thus secured to all students of the University who desire a thorough course.

Fees.—These are: for Course of Lectures, 140 dollars; Matriculation, 5 dollars; Demonstrator's Fee (including material for dissection), 10 dollars; final Examination Fee, 30 dollars.

BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK.

THE teaching staff of the College consists of the following professors: Dr. Isaac E. Taylor (Obstetrics and Diseases of Women)—*Emeritus*; Dr. Fordyce Barker (Clinical Midwifery and Diseases of Women); Dr. B. W. McCready (*Materia Medica* and Therapeutics and Clinical Medicine)—*Emeritus*; Dr. Austin Flint (Principles and Practice of Medicine, and Clinical Medicine); Dr. F. S. Dennis (Principles and Practice of Surgery and Clinical Surgery); Dr. Lewis A. Sayre (Orthopædic Surgery and Clinical Surgery); Dr. Alexander B. Mott (Clinical and Operative Surgery); Dr. Wm. T. Lusk (Obstetrics and Diseases of Women and Children, and Clinical

Midwifery); Dr. A. A. Smith (*Materia Medica* and Therapeutics, and Clinical Medicine); Dr. Austin Flint, jun. (Physiology and Physiological Anatomy); Dr. Joseph D. Bryant (Anatomy and Clinical Surgery); Dr. R. Ogden Doremus (Chemistry and Toxicology); Dr. Edward G. Janeway (Diseases of the Nervous System and Clinical Medicine, and Associate Professor of Medicine); Dr. Henry D. Noyes (Ophthalmology and Otolaryngology); Dr. John P. Gray (Psychological Medicine and Medical Jurisprudence); Dr. Beverly Robinson (Clinical Medicine); Dr. J. W. Howe (Clinical Surgery); Dr. Edward L. Keyes, Cutaneous and Genito-Urinary Diseases); Dr. J. L. Smith (Diseases of Children); Dr. W. H. Welch (Pathological Anatomy and General Pathology); Dr. C. A. Doremus (Adjunct to Chair of Chemistry and Toxicology); also the following lecturers: Dr. L. M. Yale (Adjunct, Orthopædic Surgery); Dr. F. H. Bosworth (Diseases of the Throat); Dr. F. A. Castle (Pharmacology); Dr. T. H. Burchard (Surgical Emergencies); Dr. C. S. Bull (Ophthalmology and Otolaryngology).

The Collegiate Year in this Institution embraces the Regular Winter Session, and a Spring Session. The Regular Session begins on Wednesday, September 19, 1883, and ends about the middle of March 1884. During this Session, in addition to four didactic lectures on every week day except Saturday, two or three hours are daily allotted to clinical instruction. Attendance upon two regular courses of lectures is required for graduation. The Spring Session consists chiefly of recitations from text-books. This Session begins about the middle of March, and continues until the middle of June. During this Session, daily recitations in all the departments are held by a corps of examiners appointed by the Faculty. Short courses of lectures are given on special subjects, and regular clinics are held in the Hospital and in the College building.

Fees.—For the Regular Session: Tickets to all the Lectures, Clinical and Didactic, 140 dollars; for Students who have attended two full courses at other Medical Colleges; and for Graduates of less than three years' standing of other Medical Colleges, 70 dollars; Matriculation fee, 5 dollars; Dissection fee (including material for dissection), 10 dollars; Graduation fee, 30 dollars; no fees for Lectures are required of Graduates of three years' standing, or of third-course Students who have attended their second course at the Bellevue Hospital Medical College. For the Spring Session; Matriculation (ticket valid for the following winter), 5 dollars; Recitations, Clinics, and Lectures, 40 dollars; Dissection (ticket valid for the following winter), 10 dollars.

The Matriculation Examination consists of English composition; Grammar, an examination upon the above-mentioned composition; Arithmetic, including vulgar and decimal fractions; Algebra, including simple equations; Geometry, first two books of Euclid. This examination will be waived for those who have received the degree of A.B., those who have passed the freshman examination for entrance into any incorporated literary college, those who present certificates of proficiency in the subjects of the matriculation examination from the principal or teachers of any reputable high school, and those who have passed a matriculation examination at any recognised medical college or at any scientific school or academy in which an examination is required for admission.

UNIVERSITY OF LOUISVILLE.

THE following constitute the Faculty of the Medical Department of this University:—Dr. J. M. Bodine, Professor of Anatomy and Diseases of the Ear and Throat, Dean; Dr. Lunsford P. Yandell, Professor of Principles and Practice of Medicine and Clinical Medicine; Dr. E. R. Palmer, Professor of Physiology and Clinical Diseases of the Chest; Dr. T. S. Bell, Professor of State Medicine and Sanitary Science; Dr. James W. Holland, Professor of Materia Medica, Therapeutics, and Clinical Medicine; Dr. David W. Yandell, Professor of Surgery and Clinical Surgery; Dr. W. O. Roberts, Professor of Surgical Pathology and Operative Surgery; Dr. John A. Ochterlony, Professor of Obstetrics and Diseases of Women and Children; Dr. H. A. Cottell, Lecturer on Medical Chemistry; Dr. W. Cheatham, Clinical Lecturer on Diseases of the Eye, Ear, and Throat; Dr. R. B. Gilbert, Demonstrator of Anatomy; Dr. C. Skinner, Assistant Demonstrator of Anatomy.

The Forty-seventh Regular Annual Session begins September 10, 1883, and ends March 1, 1884.

Fees.—Matriculation Ticket, 5 dollars; General Lecture Ticket, 75 dollars; Practical Anatomy, 10 dollars; Hospital Ticket, 5 dollars; Graduation, 30 dollars.

The Spring Term of 1884 will begin March 3, and end June 1. This Course offers special and superior facilities for students just entering upon the study of medicine, and those who, having finished attendance upon their first course of lectures, desire to continue their studies systematically throughout the year. It includes Clinical Teaching and Pharmaceutical work in the Dispensary, systematic recitations from Text-books, by a corps of examiners who have the use of the Museum for illustration, personal manipulations in Operative Surgery, Chemistry, Histology, Ophthalmoscopy, Laryngoscopy, and Otoscopy. The Spring Course is designed to be supplementary to the Regular Winter Course. Attendance upon it is voluntary, and does not count as a session. The Fee for the Full Course is 25 dollars.

Postgraduate Course.—This course is for the special benefit of practitioners of medicine, and is wholly distinct from the regular course of instruction preparatory to graduation. The Postgraduate Course will begin on April 1, 1884, and continue six weeks. It will consist of clinical and didactic lectures and demonstrations as follows: Dr. Bodine, On the Diseases of the Ear and Throat; Dr. L. P. Yandell, On Clinical Medicine, Diseases of the Skin and Venereal Diseases; Dr. Palmer, On Physical Diagnosis; Dr. Bell, On State Medicine; Dr. Holland, On Diseases of the Nervous System; Dr. D. W. Yandell, On the Surgery of the Rectum and Urinary Tract; Dr. Roberts, On Operative and Orthopaedic Surgery; Dr. Ochterlony, On the Diseases of the Puerperal State; Dr. Cheatham, On Ophthalmology and Laryngology; Dr. Cottell, On Urinalysis and Toxicology.

The extensive museum, laboratories, and abundant clinical material of the University will be thoroughly utilised for illustrating this course. Practitioners in attendance will have the opportunity of making personal examination of patients in the several clinical departments, and ample scope will be afforded for practical observation. They will also receive practical instruction in the use of instruments of precision, apparatus, &c. The fee for the entire course,

including matriculation, clinical instruction, use of laboratories and dissecting rooms (material only extra and at cost), is 40 dollars. A certificate of attendance, signed by the Faculty, will be given at the close of the course.

The University Dispensary affords great facilities to students. The building is upon the University grounds, and is open to patients and students throughout the year. The Dispensary furnishes material for Daily College Clinics from the following chairs: Clinical Medicine, Clinical Surgery, Diseases of Women and Children, Diseases of the Heart and Lungs, and Diseases of the Eye and Ear, Diseases of the Skin, and Diseases of the Nervous System. In addition to the daily College Clinics mentioned, two Medical and two Surgical Clinics will be held weekly in the commodious amphitheatre of the City Hospital. The Professors of Clinical Medicine and Clinical Surgery will lecture in the Hospital during the session. In addition to the above, the abundant clinical material of SS. Mary and Elizabeth Hospital is at the command of the University Faculty.

CANADA.

THE following are the Medical Examining Bodies and Schools in the several provinces constituting the Dominion of Canada.

NOVA SCOTIA.—University of Halifax Faculty of Medicine; Halifax Medical College.

ONTARIO.—College of Physicians and Surgeons of Ontario; Medical Faculty of the University of Victoria College, Coburg; Medical Faculty of Queen's College, Kingston; Royal College of Physicians and Surgeons, Kingston; Medical Faculty of the University of Ottawa; University, Toronto; Trinity College Faculty of Medicine, Toronto; Toronto School of Medicine; Trinity Medical College.

QUEBEC.—College of Physicians and Surgeons of Quebec; Bishop's College University Faculty of Medicine, Montreal; Laval University, Montreal and Quebec; McGill University Faculty of Medicine.

UNIVERSITY OF TORONTO.

THE University of Toronto has no Medical Department, and does not teach Medicine. Its sole functions are to prescribe Studies, examine Candidates, confer Degrees, and award Scholarships, Medals, &c. It has by statute the power, with the approval of the Governor of Ontario and Council, to affiliate with itself independent incorporated Medical Schools.

The Decree of Bachelor of Medicine may be obtained, either (1) by taking a Pass Course, or (2) by taking an Honour Course.

Candidates must pass the Matriculation Examination unless (1) they possess a Degree in Arts, not being an Honorary Degree, from any Dominion or British University; or (2) they have already matriculated in the Faculty of Arts, or in the Faculty of Law in this University. Before presenting themselves for the Matriculation Examination, candidates must produce satisfactory certificates of good conduct, and of having completed the sixteenth year of their age. The Matriculation Examination (both Pass and Honours) commences in the latter part of June, and Supplemental Examinations (Pass alone) are held in the latter part of

September. Candidates on giving notice of intention to present themselves at the Matriculation Examination must signify whether they propose taking the Pass or the Honour Examination. Scholarships are only awarded in connection with the latter. The following groups of subjects must be passed by every Matriculant: 1. Three out of four languages, Latin, Greek, French, and German, one of which must be Latin; 2. Mathematics, including Arithmetic, Algebra to the end of Quadratics, and the first three books of Euclid; 3. English Grammar, Composition, and Dictation, with the Outlines of English History and the Geography of America and Europe. Extra Honour papers are set in all the above-mentioned subjects, and special attention is paid to translation from English into other languages.

Undergraduates must attend lectures and receive practical instruction, during four years, at a recognised School of Medicine. Each Undergraduate, at the end of each of the four years, must present himself at the Annual Examination. These examinations are styled the first, second, third, and fourth Professional Examinations, and are to be passed by all candidates for the Degree. Graduates in Arts of this University, with honours in the department of Natural Sciences, are exempted from the First Professional Examination, and from the fee for the same. They must, however, take Anatomy along with the Second Professional Examination. No candidate can pass a Professional Examination who has not obtained at least one-half of the marks required; nor is a candidate considered as having passed any subject who has not obtained at least one-third of the marks allotted to it. Every undergraduate who proposes to present himself at a Professional Examination must send in to the Registrar a statement (according to a printed form furnished) of the course he is taking, whether Pass or Honour, of the lectures attended, and of the practical instruction received, with the names of the Teachers, and such other particulars as the printed form may indicate, together with the original certificates referred to in the statement.

The following are the certificates required for the different examinations, and the subjects of examination.

First Professional Examination.—Certificates are required: 1. Of Matriculation; 2. Of having attended a course of lectures on each of the following subjects: Anatomy, 100 lectures; Physiology and Inorganic Chemistry, each 60 lectures; Natural Philosophy, 20 lectures; Botany and Zoology, each 40 lectures. 3. Of practical instruction in anatomy during six months. The subjects of examination are: 1. Anatomy of the Bones, Muscles, and Ligaments, and of the Viscera of the Abdomen and Thorax; 2. Elements of Inorganic Chemistry; 3. Elements of Natural Philosophy, Electricity, Heat, and Light; 4. Elements of Botany. (An acquaintance with the noxious and medicinal plants of the Canadian flora is expected.) 5. Elements of Zoology; and, for candidates for honours, Comparative Anatomy of Vertebrata, and Practical Examination in Natural Philosophy.

Second Professional Examination.—Candidates must produce certificates: 1. Of having attended lectures on Anatomy (second course of 100 lectures); Physiology, *Materia Medica* and Therapeutics, each 100 lectures; Organic Chemistry; 2. Of Practical Instruction in Anatomy (a second course of six

months; Histology; and Physiological Chemistry, each during three months; 3. Of having dissected the human body once; 4. Of being skilled in Compounding and Dispensing Drugs. (This certificate may be from a registered practitioner, the apothecary of a public hospital, or of a public dispensary, or from a member of the Pharmaceutical Societies of Ontario or Quebec.) The subjects of examination are: 1. Elements of Organic Chemistry; 2. Anatomy; 3. Physiology; 4. *Materia Medica* and Therapeutics; and (for honours) Physiology of Muscle, Nerve Circulation, &c.

Third Professional Examination.—The candidates must produce evidence: 1. Of having attended lectures on Practice of Medicine, Surgery, Obstetrics, each 100 lectures; Clinical Surgery and Medicine, and General Pathology, each 50 lectures; 2. Of having dissected the human body a second time; 3. Of Practical Instruction in Pathological Histology during three months. The subjects of this examination are: 1. Practice of Medicine; 2. Surgery and Surgical Anatomy; 3. General Pathology, including Morbid Anatomy and the mode of conducting Necropsies; 4. Obstetrics and Diseases of Women and Children; 5. Clinical Medicine and Surgery.

Fourth Professional Examination.—Certificates are required: 1. Of having attended lectures on:—Clinical Medicine and Surgery, and Forensic Medicine, each 50 lectures; Hygiene, 25 lectures; Medical Psychology, 12 lectures; 2. Of Practical Instruction in Chemistry in its application to Hygiene and Forensic Medicine; 3. Of having attended at least six clinics in a Public Lunatic Asylum; 4. Of having conducted at least six Labours; 5. Of proficiency in Vaccination (certificate received from any registered Practitioner); 6. Of attendance in the wards of a Public Hospital accommodating not less than 100 beds during eighteen months; 7. Of attendance for six months on the out practice of a Hospital, Dispensary, or registered Practitioner; 8. Of having attended twelve Necropsies. The subjects of examination are: 1. Practice of Medicine; 2. Surgery; 3. Forensic Medicine; 4. Hygiene; 5. Medical Psychology; 6. Clinical Medicine and Surgery; 7. Practical Chemistry in its application to Forensic Medicine and Hygiene.

Scholarships.—The following Scholarships are annually offered for competition: At Matriculation, one of 100 dollars and one of 50 dollars; at each Professional Examination, one of 120 dollars and one of 80 dollars. The First Year Scholarships are not open to Graduates in Arts with Honours in the Department of Natural Sciences. No Professional Scholarship will be awarded to any Candidate who has not obtained First Class Honours in the Examination for which it was conferred. Each Scholarship is tenable for one year only, but the Scholar of one year is eligible for the Scholarship of a succeeding year. A gold medal and three silver medals are offered annually for competition among the Undergraduates who have succeeded in obtaining the degree of M.B., with First Class Honours, and will be awarded according to the percentage of marks in the aggregate results of the Second, Third, and Fourth Professional Examinations; but the gold medal will only be awarded on the special recommendation of the Examiners. Prizes, each of the value of 10 dollars, in books, may be awarded annually among Undergraduates in Law, Medicine and Arts, for the best Composition in Greek Verse,

Greek Prose, Latin Verse, Latin Prose, English Verse, English Prose, French Prose, or German Prose. Certificates of Honour will be given to those students, who, at any of the Examinations, have been placed in the First Class in Honours in any Department. One Gold and two Silver Medals, called the "Starr Medals," are conferred upon the three Bachelors of Medicine who have attained, in the course of their Annual Professional Examinations, the highest marks in the following subjects: Anatomy for the first and second years, and in Surgical Anatomy of the third year; Physiology for the first and second years, and Histology, Physiological Chemistry and Practical Physiology of the second year; General Pathology and in Morbid Anatomy and Histology of the third year. Every recipient of the Medal must have attained the standing of First Class in each of the above-mentioned subjects, and must have been classed in Honours in the Fourth Professional Examination.

Candidates for Honours are entitled to First Class Honours in any of the Professional Examinations if they obtain 75 per cent. of the aggregate marks; those who obtain 66 per cent. will be entitled to Second Class Honours. Extra papers on all the Pass Subjects will be set for Honour candidates, as well as papers on certain extra Honour subjects, viz., Comparative Anatomy of the Vertebrae, Natural Philosophy, the Physiology of Nerve, Muscle, Circulation, &c. Candidates proceeding to the Degree of M.B. by taking the Honour Course are grouped in two classes. Those who receive the Degree with First Class Honours who have been placed in the First Class Honour List in second, third, and fourth Professional Examinations. Those receive their Degree with Second Class Honours who have been placed in the Honour List in the second, third, and fourth Professional Examinations. Candidates for the Degree of M.B. who are also Graduates in Arts of the University with Honours in the Department of Natural Science, are considered as having passed their first Professional Examination with First Class Honours.

Degree of M.D.—Candidates for the Degree of M.D. must be of one year's standing from admission to the Degree of M.B., and have composed an approved thesis upon some medical subject.

Fees.—The fees are: Matriculation, 5 dollars; Registration of exemption from this examination for Graduates in Arts from other Universities, 5 dollars; for Matriculants from other Faculties in the University, 3 dollars; for Graduates in Arts of this University, 2 dollars. No fee is exacted from Graduates in Arts of this University who have taken honours in Natural Science. For each Professional Examination, 2 dollars; a rejected candidate may present himself at the same examination in the following year on payment of 1 dollar. Degree of M.B., 6 dollars; Degree of M.D., 8 dollars.

TRINITY COLLEGE UNIVERSITY FACULTY OF MEDICINE.

THE following are the requisites for admission to the Degree of Bachelor of Medicine in this University. The candidate must have passed a Matriculation Examination in the following subjects, or one equivalent thereto, in this or in some other recognised institution. The subjects comprised are: Arithmetic; Algebra (including Simple Equations); Geometry

(first three Books of Euclid); Latin (Translation and Grammar); Greek (Translation and Grammar) or Natural Philosophy; and one of the following subjects: English, French, German, Scripture History and Greek Testament. A Graduate or Matriculant in Arts, in any recognised University in Her Majesty's Dominions, is not required to pass the Matriculation Examination. He must produce a satisfactory certificate of good conduct, must be 21 years of age, and must have regularly attended lectures extending over four winter sessions, or have studied one year with a medical practitioner, and have subsequently attended lectures during three winter sessions. He must have attended not less than two courses of six months each on Anatomy, Practical Anatomy, Medicine, Surgery, Chemistry, Midwifery, and Diseases of Women and Children, Materia Medica, and Therapeutics, Physiology; two three months' courses on Medical Jurisprudence, and one course in Normal Histology, Pathological Histology, Practical Chemistry, Toxicology, Botany, and Sanitary Science respectively. He must also have attended for at least eighteen months the practice of some General Hospital, and have attended, during two sessions, Clinical Lectures on Medicine and Surgery; and, for at least six months, the practice of a Lying-in Hospital; or he must have otherwise enjoyed equivalent obstetrical advantages, with attendance upon at least six cases of Labour. He must have passed in this University an examination in all the above subjects. The course of study may have been pursued either wholly in Trinity Medical School, or partly in some other recognised Medical School.

The examinations are Primary and Final. The Primary Examination embraces Descriptive Anatomy, Physiology, Normal Histology, General Chemistry and Chemical Physics, Practical Chemistry, Toxicology, Materia Medica and Therapeutics, Botany. It may be passed at the close of the second year's lectures.

The Final Examination embraces Theory and Practice of Medicine, Principles and Practice of Surgery, Midwifery and Diseases of Women and Children, Pathological Histology, Medical Jurisprudence, and Sanitary Science. It takes place at the close of the last Winter Session.

Should the candidate desire it, he may undergo his entire examination in all the branches at the end of his last year's study. The examinations are held annually in the spring.

Degree of M.D. and C.M.—Candidates for this Degree must be Bachelors of Medicine of at least twelve months' standing. They are required to send in at least one month before Convocation a Thesis on some Medical Subject, which Thesis must be approved by the Board of Examiners.

Fees.—These are Primary Examination for the Degree of M.B., 10 dollars; Final ditto, 14 dollars. Full Fee, including all College Examinations, 24 dollars. Candidates rejected at either the Primary or the Final Examination have the fee returned, less fee 5 dollars. There is no additional fee for the degree of M.D.

TRINITY MEDICAL SCHOOL.

THIS School is in affiliation with the University of Trinity College; also with the Universities of Toronto and Halifax; and is recognised by the Royal

Colleges of Physicians and Surgeons of Great Britain. The winter Session of 1883-84 will commence on Tuesday, October 2nd, 1883. Lectures will be delivered by the following professors: Dr. Walter B. Geikie (Practice of Medicine and Clinical Medicine); Dr. J. Fulton (Surgery and Clinical Surgery); Dr. J. Algernon Temple (Obstetrics and Diseases of Women and Children); Dr. J. E. Kennedy (Materia Medica and Therapeutics); Dr. H. Robertson (Anatomy, Descriptive and Surgical); Mr. Thomas Kirkham (General Chemistry and Botany); Dr. C. W. Covernton (Sanitary Science); Dr. Fred. Le M. Grasset (Medical Jurisprudence, Lecturer on Surgical Appliances); Dr. W. T. Stuart (Practical Chemistry and Toxicology); Dr. Charles Sheard, (Physiology and Histology); Dr. J. Fraser is Demonstrator of Anatomy; and Dr. G. S. Ryerson lectures on the Eye, Ear, and Throat.

Matriculation.—Students are advised before commencing their medical studies, to pass the Matriculation Examination of the Medical Council of Ontario or Quebec, either of which will be accepted by the University of Trinity College. Students from the Maritime Provinces, Ontario, or the United States, who do not desire to pass the Council Examination, will be admitted to attendance on Lectures, but must present themselves for the Matriculation Examination of Trinity University, on the second Saturday of October or March, or the Matriculation in Toronto University at the usual time. The matriculation of the Universities may be passed at any time before graduation.

The Toronto General Hospital has a large number of patients in the wards, who are visited daily by the medical officers in attendance. The attendance of out-door patients daily is also very large, and thus abundant opportunities are enjoyed by students, for acquiring a familiar knowledge of Practical Medicine and Surgery. The Burnside Lying-in Hospital, amalgamated with the Toronto General Hospital, has recently had its staff largely increased, and will afford special and valuable facilities for the study of Practical Midwifery. The large new building, close to the Hospital and School, will be very convenient for students attending its practice. The Mercer Eye and Ear Infirmary is also amalgamated with the Toronto General Hospital, and affords special facilities for students in this department. The Toronto Dispensary, established several years ago, is open to students free of charge.

Daily clinical instruction will be given by members of the Hospital Staff, on all interesting cases, Medical and Surgical. Arrangements have been recently made for the delivery of daily clinics, in the theatre of the Hospital, by the respective professors in medicine and surgery of both schools, in addition to the usual clinics.

Fees.—The Fee for Anatomy, Surgery, Practice of Medicine, Obstetrics, Materia Medica, Physiology, and General Chemistry, 12 dollars each; Practical Anatomy, Practical Chemistry, Normal Histology, and Pathological Histology, 8 dollars each; Clinical Medicine, Clinical Surgery, and Medical Jurisprudence, 6 dollars each; Botany, Sanitary Science, Zoology, and Medical Pathology, 5 dollars each; Registration Fee (payable once only), 5 dollars. Students are free in all the regular Branches after having attended the School during the two full courses.

McGILL UNIVERSITY FACULTY OF MEDICINE, MONTREAL.

THE Matriculation Examination comprises the following subjects: English language (including Grammar and Composition); Arithmetic (including Vulgar and Decimal Fractions); Algebra (including Simple Equations); Geometry (first two books of Euclid); Latin (Translation and Grammar); and one of the following optional subjects: Greek, French, German, Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics. Graduates in Arts of recognised Universities are not required to submit to the Matriculation Examination; and a certificate of having passed this examination before the College of Physicians and Surgeons of Ontario or of Quebec is accepted.

Candidates for the degree of Doctor of Medicine and Master of Surgery must be 21 years of age, must have studied medicine four years, one Session being at this School, and must pass the necessary examinations. Graduates in Arts of recognised Universities, and students who produce evidence of having studied a year with a physician subsequent to passing the Matriculation Examination, can qualify for examination after attendance on three Sessions.

Candidates for the Final Examination must furnish testimonials of attendance on the following courses: Anatomy, Chemistry, Materia Medica and Pharmacy, Institutes of Medicine, Principles and Practice of Surgery, Midwifery and Diseases of Women and Children, Theory and Practice of Medicine, Practical Anatomy, Clinical Medicine, Clinical Surgery—each two six-months' courses; Medical Jurisprudence—one course of six months or two courses of three months; Practical Chemistry, Botany or Zoology, Hygiene—each one three-months' course duration; not less than twenty-five Demonstrations upon Microscopic Anatomy, Physiology, and Pathology. Testimonials equivalent to, though not precisely the same as those above stated, may be presented and accepted. The Candidate must have attended during eighteen months the practice of the Montreal General Hospital, or that of some other approved Hospital, and have compounded medicines for six months. He must also have attended for at least six months the practice of the University or other approved Lying-in Hospital, and have attended at least six Accouchements.

The examinations at the close of each session are arranged as follows: *First Year.*—Elementary Anatomy and Physiology; Chemistry (Chemical Physics and Chemical Philosophy); Materia Medica; Practical Anatomy; Botany. *Second Year.*—Primary Pass Examination—Anatomy; Practical Anatomy; Physiology; Chemistry; Practical Chemistry; Materia Medica. *Third Year.*—Sessional Examination—Medical Jurisprudence, with Toxicology; Hygiene; Medicine; Surgery; Midwifery. *Fourth Year.*—Final Pass Examination—Medicine, Surgery, Midwifery, Clinical Medicine, Clinical Surgery, Medical Anatomy, Surgical Anatomy.

The Sessional Examinations at the close of the first and third years are compulsory. At the Primary Examination at the end of the second year, the student may leave two branches for the third year; in any case, Chemistry and one other must be taken at the end of the second year.

The Collegiate Courses of the School are a Winter Session, extending from the 1st of October to the

end of March, and a Summer Session, from the end of the first week in April to the end of the first week in July. The fifty-first session will commence on October 1st. The following constitute the Faculty of Medicine:—Dr. J. W. Dawson (Natural History), Principal; Dr. R. P. Howard, Dean; Dr. W. Wright (*Emeritus*); Dr. Robert P. Howard (Theory and Practice of Medicine); Dr. Duncan C. McCallum (*Emeritus*); Dr. R. Craik (*Emeritus*); Dr. G. E. Fenwick (Surgery); Dr. J. M. Drake (*Emeritus*); Dr. G. P. Girdwood (Chemistry); Dr. George Ross (Clinical Medicine); Dr. William Osler (Institutes of Medicine); Dr. Thomas G. Roddick (Clinical Surgery); Dr. William Gardner (Gynaecology); Dr. F. J. Shepherd (Anatomy); Dr. F. Buller (Ophthalmology); Dr. A. A. Browne (Obstetrics); Dr. J. Stewart (Materia Medica and Therapeutics); Dr. G. Wilkins (Medical Jurisprudence); Dr. D. P. Penhallow (Botany); and also by Dr. R. Likardonnell (Demonstrator of Anatomy, and Lecturer on Hygiene); Dr. W. Sutherland and Dr. R. J. B. Howard (Assistant Demonstrators of Anatomy); Dr. George W. Major (Instructor in Laryngology); Dr. Alex. D. Blackader (Instructor in Diseases of Children); and Dr. T. W. Mills (Demonstrator of Physiology).

Students from Ontario and Quebec are advised to pass the Matriculation Examination of the Medical Councils of their respective Provinces before entering upon their studies. Students from the United States and Maritime Provinces must present themselves for the Matriculation Examination of the University, on the first Friday of October, or the last Friday of March.

The Montreal General Hospital has an average number of 150 patients in the wards, the majority of the cases being acute. The shipping and large manufactories contribute many examples of accidents and surgical cases. In the out-door department there is a daily attendance of between 75 and 100 patients, which affords excellent instruction in minor surgery, routine medical practice, venereal diseases, and the diseases of children. Clinical clerkships and dresserships can be obtained on application to the members of the Hospital staff. The University Dispensary was established for the purpose of affording to senior students practical instruction in diseases of women. Two other special departments have been added, viz.: Diseases of Children and Diseases of the Skin.

The clinical teaching is conducted in the wards and theatre of the General Hospital, daily, throughout the Session. Ample opportunities are afforded to the student to investigate the cases.

The fees arranged according to years, are as follows:—First year, 76 dollars; second year, 89 dollars; third year, 74 dollars; fourth year, 64 dollars; Hospital Ticket (six months), 8 dollars; Lying-in Hospital (six months), 8 dollars; Graduation, 20 dollars. All fees are payable strictly in advance.

COLLEGE OF PHYSICIANS AND SURGEONS OF QUEBEC.

EVERY medical student of the province of Quebec, before beginning his professional studies, must pass a satisfactory examination upon the following subjects: English and French, Latin, Geography, History, Arithmetic, Algebra, Geometry, and Belles-Lettres, and upon any one of the following subjects:

Greek, Natural and Moral Philosophy. He must also present a certificate of a good moral character.

The examination is oral and written; and the oral part of the examination is conducted jointly by two examiners, one speaking French and the other English.

The Board may recognise an equivalent preliminary examination before any authorised College or Licensing Board in Her Majesty's Dominion, provided that the same privilege is accorded to the students of this province.

Every medical student must pursue his professional studies during not less than four years from the time of his having passed the Preliminary Examination. Of the four years, three six months' sessions at least must be passed in attendance upon lectures at an University, College, or incorporated School of Medicine recognised by this Board, the first whereof shall be so passed the year immediately succeeding the Preliminary Examination. Every student must pursue the following curriculum of study: General or Descriptive Anatomy, Practical Anatomy, Surgery, Practice of Medicine, Midwifery, Chemistry, Materia Medica and General Therapeutics, the Institutes of Medicine or Physiology, and General Pathology, Clinical Medicine, Clinical Surgery, two six months' courses of each; Medical Jurisprudence, a course of six months, or two courses of three months; Botany and Hygiene, a three months' course of each; and a course of not less than twenty-five demonstrations upon Microscopic Anatomy, Physiology, and Pathology. He must attend the general practice of an Hospital containing not less than fifty beds, under the charge of not less than two physicians or surgeons, for not less than eighteen months, or for three periods of not less than six months each. He must attend six cases of labour, and compound medicine for six months. Each six months' course must consist of 120 lectures except those of Clinical Medicine, of Clinical Surgery, and of Medical Jurisprudence.

The total duration of the examination is one hour and forty-five minutes.

Before examination the candidate must deposit the required fee, and produce satisfactory evidence that he has attained the full age of twenty-one years, and that he has complied with the rules and regulations of the Board.

Fees.—These are: Preliminary or Matriculation Examination, 10 dollars; Diploma or Licence to Practice, 20 dollars; annual subscription, 2 dollars; registration of additional degrees or title, 1 dollar. If a Candidate for the Licence or for the Preliminary Examination be rejected, he forfeits half the fees.

BISHOP'S COLLEGE UNIVERSITY FACULTY OF MEDICINE, MONTREAL.

THIS University confers the degrees of Doctor of Medicine and Master of Surgery. The degree of Master of Surgery (C.M.) is not conferred on any person who does not at the same time obtain the degree of Doctor of Medicine (M.D.). Each student must undergo, prior to the commencement of his medical studies, a Preliminary Examination upon the following subjects: English, French, Latin, Arithmetic, Algebra, Geometry, History, Belles-Lettres, and one of the following optional subjects: Greek, Natural and Moral Philosophy. Candidates for degrees must have been engaged uninterruptedly for four years in medical and surgical study; but a certificate

of having studied one full year with a duly licensed practitioner reduces the period of study at the University to three sessions. Students must matriculate afresh at the commencement of every session, on or before the 1st of December. Every candidate for graduation must give sufficient evidence by certificates: 1. That he has attended two six months' courses of lectures on each of the following subjects: (a) General or Descriptive Anatomy, Principles and Practice of Surgery, Theory and Practice of Medicine, Midwifery and Diseases of Women and Children, Chemistry, Materia Medica, and Therapeutics, and Physiology; (b) One six months' course or two three months' courses of Medical Jurisprudence, one six months' course of Pathology, one three months' course of Botany, of Hygiene, and also of Practical Chemistry and Microscopy, and also a course of not less than twenty-five demonstrations upon Microscopic Anatomy, Physiology and Pathology; (c) Not less than two six months' courses of Clinical Medicine and Clinical Surgery; (d) Two six months' courses of Practical Anatomy; (e) That he has attended for at least eighteen months, or three periods of six months each, the medical and surgical practice of a hospital in which are contained not less than fifty beds, under the charge of not less than two physicians or surgeons, and that he has been engaged for at least six months in compounding and dispensing medicines. That he has attended at least six cases of midwifery.

Of the four years of medical and surgical study one full course on each branch mentioned in sections *a* and *b* must be attended in this University.

Every candidate for the degree must, on or before the 1st day of March, deliver to the Dean of the Medical Faculty, a declaration in his own handwriting that he has completed his twenty-first year of age (or that he will have done so before the day of graduation); and a statement of his studies, accompanied with proper certificates.

Every candidate is examined both in writing and *à viva voce*. The Examinations are divided into Primary and Final. The Primary Examination comprehends Anatomy, Chemistry, Practical Chemistry, Materia Medica, Physiology, and Botany or Zoology. The Final Examination includes Practice of Medicine, Clinical Medicine, Surgery, Clinical Surgery, Midwifery and the Diseases of Women and Children, Medical Jurisprudence, Pathology, and Hygiene.

Candidates may be admitted to examination on the Primary branches at the end of the third year of their study. The Final Examination does not take place until the candidate has completed his fourth year.

Fees.—The fees for the classes of Pathology, Hygiene, Botany, and Practical Anatomy, are 6 dollars each; Medical Jurisprudence, 10 dollars; Practical Histology, 16 dollars; all other classes, 12 dollars each. Degree of Doctor of Medicine and Master in Surgery, 20 dollars; Registration Fee, 1 dollar.

HALIFAX UNIVERSITY AND MEDICAL COLLEGE.

CANDIDATES for the degree of Doctor of Medicine must have attended lectures for at least four years after passing the Matriculation Examination. This examination comprises the following subjects: 1. *Compulsory*: English Language (including Grammar, Composition, and Writing from Dictation);

Arithmetic (including Vulgar and Decimal Fractions and the Extraction of the Square Root); Algebra (to the end of Simple Equations); Geometry (first two books of Euclid); Latin (one book, Translation and Grammar). 2. *Optional*: One of the following subjects: History of England, with questions in Modern Geography; French Translation; German Translation; One Greek Book; Natural Philosophy (including Mechanics, Hydrostatics, and Pneumatics); History of Nova Scotia; History of the Dominion of Canada. The fee is five dollars, and is not returned in cases of failure. Candidates for this examination must be at least 16 years of age. Graduates in Arts of recognised Universities are not required to pass the Matriculation Examination.

Instruction in medicine in the surgery of a recognised practitioner for one year is received as equivalent to a year of study.

The professional examination is divided into primary and final. The former comprises Anatomy, Chemistry, Materia Medica, Physiology and Botany, or Zoology; the latter, Medicine, Surgery, Obstetrics, and Medical Jurisprudence. Candidates may present themselves for the primary examination at the end of the third session, or third year of study.

Candidates for the final examination must produce certificates of having attended two six months' courses each of Anatomy, Chemistry, Materia Medica, Physiology, Surgery, Midwifery, Medicine, Practical Anatomy, Clinical Medicine, and Clinical Surgery; one three months' course each of Practical Pharmacy, Medical Jurisprudence, Botany, and Practical Chemistry; the practice of a recognised Hospital during twelve months; the practice of a Lying-in Hospital for at least six months (or of having attended at least six cases of labour); of having had three months' practice in Dispensing; and of having acquired proficiency in the practice of Vaccination. One session at least must be attended in the Halifax Medical College. Each candidate must present a thesis on some medical or surgical subject, and sign a declaration that he is twenty-one years of age. The examination is oral and written, in all branches; and there is a Clinical Examination in Medicine and Surgery at the bedside.

The fee for the degree of Doctor of Medicine and Master of Surgery is twenty dollars, with a registration fee of one dollar.

COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

ALL persons, whatever qualifications they may possess, must be examined by this College in order to obtain a licence to practise in the province of Ontario.

Candidates for the membership of this College must spend four years (forty-eight months) in professional studies after having passed a matriculation examination in the English Language, Arithmetic, Algebra (including Simple Equations), Geometry (first two books of Euclid), Latin (Translation and Grammar), and either Greek, French, German, or Natural Philosophy (including Mechanics, Hydrostatics, and Pneumatics). Graduates in Arts, or students who have matriculated in Arts in any University in the British dominions, are not required to pass the Matriculation Examination; and Graduates in Arts may pass the final examination at the end of three years.

Every candidate must have attended, in an Uni-

versity, college, or school of medicine, two courses of six months each, in Anatomy, Practical Anatomy, Physiology (including Histology), Theoretical Chemistry, Materia Medica and Therapeutics, Medicine, Surgery, Midwifery and Diseases of Women and Children, Clinical Medicine and Clinical Surgery; one course of six months, or two courses of three months each, in Medical Jurisprudence; one course of three months in Practical Chemistry and Botany; one course of not less than twenty-five demonstrations on Histology, Physiology, and Pathology; and one course of twenty-five lectures on Sanitary Science.

The Professional Examination is divided into primary and final. The Primary Examination, at the end of the second winter session, comprises Descriptive Anatomy, Physiology and Histology, Theoretical and Practical Chemistry, Toxicology, Sanitary Science, and Botany. (Graduates in Arts who have attended one course of lectures on Botany, and two on Theoretical Chemistry, and have passed an examination in these subjects, are not subjected to further examination thereon.) The Final Examination comprises Medical and Surgical Anatomy, Theory and Practice of Medicine and Medical Pathology, Surgery and Operative Surgery, Midwifery and Diseases of Women and Children, Operative Midwifery, Medical Jurisprudence, and Materia Medica and Therapeutics.

Before being admitted to the Final Examination the candidate must have spent six months in the office of a regularly qualified medical practitioner in dispensing medicine, have attended the practice of a general hospital for twenty-five months, have attended six courses of Midwifery, and have attained the age of twenty-one years.

The Primary Examination is entirely oral, the Final is entirely written. Any candidate who fails in any one branch at the Primary Examination is held to have failed in all. Any candidate who passes in four or more branches at the Final Examinations, but fails in the others, is required to pass in the latter only at a subsequent examination. Persons intending to practise Homœopathy are on application examined by Homœopathic Examiners.

Persons from recognised colleges outside the provinces of Ontario and Quebec must pass the matriculation examination, and afterwards attend one full winter course of lectures during two winter sessions in some one of the Ontario Medical Schools, and such other course or courses as may be necessary to complete the required curriculum; and must pass all the examinations.

The Fees are: Matriculation Examination, 10 dollars; Registration, for students not examined by the College Examiners, 10 dollars; Primary Examination, 20 dollars; Final Examination, including Registration, 30 dollars; Diploma of Membership, 10 dollars; annual contribution from members of the College, 1 dollar. No portion of the examination fees is returned to unsuccessful candidates.

TEXT-BOOKS.

THE object of the subjoined notes is to inform the student, in general terms, of the works which he may use as text-books. The list is not intended to be exclusive; nor is it our purpose to say always which book is the best in any subject. Some stu-

dents learn best from one book; others from another. Again, some books are more adapted than others to the teaching of the school to which the pupil belongs. In addition to the ordinary text-books, reference will be made to some which, though not absolutely necessary to the student, may be studied with advantage.

ANATOMY AND PHYSIOLOGY.

BESIDES the symptoms of the anatomy of the bones in the chief text-books, such as those of Quain and Wilson, there are also some special works on the subject. Among them are Mr. Luther Holden's *Human Osteology* (sixth edition, J. & A. Churchill). The same firm publishes a *Student's Guide to Osteology*, by Mr. Wagstaffe. There is also Mr. Norton's *Osteology for Students* (Baillière, Tindal, & Cox). The anatomy of the joints is especially and ably treated in Mr. Henry Morris's *Anatomy of the Joints of Man* (J. & A. Churchill). For the early study of anatomy, Mr. St. George Mivart's *Elementary Lessons in Anatomy* (Macmillan & Co.) will be found instructive. The interest of the subject is increased by a demonstration of the chief relations of the structure of man to that of other animals. Among the indispensable text-books treating of human anatomy as a whole are, Quain's *Elements of Anatomy* (Longmans & Co.), edited by Drs. Sharpey and Allen Thomson, and Dr. Schäfer; Gray's *Anatomy* (Longmans), edited by Mr. Holmes; and Wilson's *Anatomist's Vade-Mecum*, tenth edition, by Dr. G. Buchanan and Mr. H. E. Clark of Glasgow (J. & A. Churchill). The first volume of a work on *Human Morphology, a Treatise on Practical and Applied Anatomy*, by Mr. H. A. Reeves (Smith, Elder, & Co.), has appeared this year. For use in the dissecting-room, Ellis's *Demonstrations of Anatomy* (ninth edition, Smith, Elder, & Co.) has long established its claim as a trustworthy guide. It contains reduced copies of plates in the author's *Illustrations of Dissections*—a work which from its price few students can purchase, but which is most valuable for assistance. Other good books for dissectors are Mr. Christopher Heath's *Practical Anatomy* (fifth edition, J. & A. Churchill); Dr. Carrington's (*Manual of Dissections of the Human Body* (George Bell & Sons); Holden & Langton's *Manual of the Dissection of the Human Body* (fourth edition, J. & A. Churchill); Dr. Cleland's *Directory for the Dissection of the Human Body* (second edition, Smith, Elder, & Co.); and a *Dissector's Guide*, with illustrations, by Dr. D. J. Cunningham (MacLachlan & Stewart). Messrs. Hensman & Fisher's *Anatomical Outlines for the Use of Students in the Dissecting-room and Surgical Classroom* (Longmans & Co.) are useful. Braune's *Atlas of Topographical Anatomy*, translated and edited by Mr. Bellamy (J. & A. Churchill), is a valuable book for reference. The drawings are made from plane sections of foreign bodies. There are also Professor W. Turner's *Atlas of Human Anatomy* (A. Johnston), Bock's *Atlas of Human Anatomy* (Renshaw), Mr. Godlee's *Atlas of Human Anatomy* (J. & A. Churchill), and Allen & Shakespeare's *System of Human Anatomy* (Henry Kimpton), also Mr. Flower's *Diagrams of the Nerves of the Human Body* (third edition, J. & A. Churchill). A *Descriptive Atlas of Anatomy*, by Mr. Noble Smith, has been published by Smith, Elder, & Co. There are also the well-known Quain and Wilson's *Anatomical*

Plates (Smith, Elder, & Co.). Mr. Thomas Cooke's *Tables of Anatomy and Physiology* (second edition) contain much information in a condensed form, and give useful aid in the study of the larger works. To students interested in the study of Zoology and Comparative Anatomy, we would recommend, as works that will give much information without being too large or costly, Mr. Flower's *Osteology of the Mammalia* (Macmillan & Co.), and Dr. H. A. Nicholson's *Manual of Zoology, and Advanced Text-Book of Zoology* (Blackwood); as well as Huxley's *Manuals of the Anatomy of Vertebrated and Invertebrated Animals* (J. & A. Churchill), Huxley and Martin's *Practical Biology*, and Dr. Macalister's *Manuals of Zoology of the Invertebrate and of the Vertebrate Animals* (Longmans & Co.). Professor Gegenbaur's *Elements of Comparative Anatomy*, translated by Mr. F. J. Bell (Macmillan & Co.) is a very complete work. For the study of Embryology, the chapter by Dr. Allen Thomson in Quain's *Anatomy*, or the *Elements of Embryology*, by Dr. M. Foster and Mr. Balfour (second edition, Macmillan & Co.), should be consulted. The subject has been most ably treated by the late Mr. Balfour in a *Treatise on Comparative Embryology* (Macmillan & Co.).

For instruction in Histology, Mr. Schaffer's *Course of Practical Histology* (Smith, Elder, & Co.), Dr. Stirling's *Text-Book of Practical Histology* (Smith, Elder, & Co.), and Dr. Klein's *Elements of Histology* (second edition, Cassell & Co.), are excellent guides; as is also the chapter on General Anatomy in Quain's *Anatomy*. A third edition of Dr. Rutherford's *Outlines of Practical Histology* (J. & A. Churchill) is in course of preparation. The *Atlas of Histology*, by Dr. E. Klein and Mr. Noble Smith (Smith, Elder, & Co.), is a valuable work for reference. Other works which will be found useful are Professor Stricker's collection of essays on *Human and Comparative Histology* (New Sydenham Society), Heinrich Frey's *Histology and Histo-Chemistry of Man*, translated by Mr. Barker (J. & A. Churchill), and Dr. Satterthwaite's *Manual of Histology* (Sampson Low & Co.).

In Physiology, the beginner will find trustworthy guides in Huxley's *Lessons in Elementary Physiology* and Huxley and Martin's *Elementary Biology* (both published by Macmillan & Co.); and, as text-books for use in medical schools, Dr. McKendrick's *Outlines of Physiology in its Relation to Man* (Maclehose, Glasgow; and Macmillan & Co.), Kirkes' *Handbook of Physiology*, edited by Mr. Morrant Baker (tenth edition, John Murray), and Dr. Michael Foster's *Text-book of Physiology* (fourth edition, Macmillan & Co.), are to be recommended; and for more advanced students, Dr. L. Hermann's *Elements of Physiology*, translated by Professor Gamgee (second edition, Smith, Elder, & Co.), Flint's *Text-Book of Human Physiology* (H. K. Lewis), and Dr. Carpenter's *Principles of Human Physiology*, by Mr. Power (ninth edition, J. & A. Churchill). The increased study in recent years of Practical Physiology has led to the publication of several guides to this department. Dr. Burdon Sanderson has prepared a manual of *Practical Exercises in Physiology* (second edition, H. K. Lewis). An *Elementary Course of Practical Physiology* by Dr. M. Foster and Mr. Langley (Macmillan & Co.) is also a book that can be recommended to beginners; while the more elaborate *Handbook for the Physiological Laboratory*, by Drs. Sanderson, Klein, Foster, and Brunton (J. & A. Churchill), is more fitted for those

who desire an extended knowledge of practical physiology.

As guides in the use of the Microscope, there are Dr. Beale's *Microscope in Medicine*, Dr. Carpenter on the *Microscope* (sixth edition, J. & A. Churchill), Wythe's *Microscopist's Manual* (third edition, J. & A. Churchill), Marsh's *Microscopical Section-Cutting* (second edition, J. & A. Churchill), Martin's *Manual of Microscopic Mounting* (second edition, J. & A. Churchill), and Dr. Heneage Gibbs's *Practical Histology and Pathology* (H. K. Lewis).

CHEMISTRY.

IN Chemistry, among the most approved text-books, are Fownes' *Manual of Chemistry*, edited, in two volumes, Inorganic and Organic, by Mr. Watts (twelfth edition, J. & A. Churchill); Roscoe's *Lessons in Elementary Chemistry*; Miller's *Elements of Chemistry* (Longmans & Co.); Bloxam's *Chemistry, Inorganic and Organic* (fifth edition, J. & A. Churchill); Williamson's *Chemistry for Students* (Macmillan & Co.); and Tidy's *Handbook of Modern Chemistry* (J. & A. Churchill). A little book by Mr. R. M. Murray, entitled *Chemical Notes and Equations for the Use of Students* (MacLachlan & Stewart), gives an useful outline of the fundamental principles of chemical science. An elaborate *Treatise in Chemistry*, by Professors Roscoe and Schorlemmer, of Owens College, Manchester, is in course of publication by Macmillan & Co.; Bowman and Bloxam's *Practical Chemistry*, seventh edition (J. & A. Churchill), has an established reputation as a practical guide.

For instruction in Physiological Chemistry, there is Dr. Ralfe's *Outlines of Physiological Chemistry* (H. K. Lewis). Dr. Arthur Gamgee is the author of a *Text-book of the Physiological Chemistry of the Animal Body* (Macmillan & Co.), of which the first volume has been published. A second edition of Dr. Thudichum's *Pathology of the Urine* has been published by J. & A. Churchill.

BOTANY.

THE text-books of Botany in most general use are Bentley's *Manual of Botany* (fourth edition, J. & A. Churchill); Bentley's *Student's Guide to Botany* (Churchill); Henfrey's *Elementary Course of Botany*, third edition, by Dr. M. T. Masters (Van Voorst); Balfour's *Manual of Botany* (A. & C. Black); Oliver's *Lessons in Elementary Botany* (Macmillan & Co.); Prantl and Vines' *Text-book of Botany*. Sachs' *Text-book of Botany*, translated by Mr. A. W. Bennett and Mr. W. T. Dyer (Macmillan & Co.) is a valuable work of reference in regard to Structural and Physiological Botany. Bentley and Trimen's admirable plates of *Medicinal Plants* (J. & A. Churchill) should be consulted by the student both of Botany and of Materia Medica.

MATERIA MEDICA AND THERAPEUTICS.

A WELL-KNOWN and useful book as a manual of materia medica is Dr. Garrod's *Essentials of Materia Medica and Therapeutics*, edited by Dr. Buchanan Baxter (sixth edition, Longmans & Co.). It requires however, to be supplemented by a treatise on therapeutics; for which purpose Dr. Ringer's *Handbook*

of *Therapeutics* (tenth edition, H. K. Lewis), Dr. Waring's *Manual of Practical Therapeutics* (third edition, J. & A. Churchill), Dr. Alexander Harvey's *First Lines of Therapeutics* (H. K. Lewis), Dr. Farquharson's *Guide to Therapeutics* (third edition, Smith, Elder, & Co.), and Dr. Sparks's edition of Binz's *Elements of Therapeutics* (J. & A. Churchill), are to be recommended. Dr. Milner Fothergill's *Practitioner's Handbook of Treatment* (second edition, Macmillan & Co.) will be of value to those who are interested in the endeavour to show the agreement between science and practice. Dr. H. C. Wood's *Treatise on Therapeutics* (Smith, Elder, & Co.) pays special attention to the therapeutic action of drugs. Other useful books are Dr. W. G. Smith's *Commentary on the British Pharmacopœia* (Smith, Elder, & Co.), Royle and Harley's *Manual of Materia Medica and Therapeutics* (sixth edition, J. & A. Churchill), Nelligan's *Medicines*, edited by Mr. Macnamara (Fannin & Co.), Dr. Phillips's *Materia Medica and Therapeutics* (J. & A. Churchill); Dr. Whitla's *Pharmacy, Materia Medica and Therapeutics* (Renshaw); Dr. Scoresby-Jackson's *Note-Book of Materia Medica*, edited by Dr. Moinet (fourth edition, MacLachlan & Stewart, and Simpkin, Marshall, & Co.), Dr. Handsel Griffiths' *Materia Medica and Pharmacy*, edited by Dr. Duffey (Baillière, Tindal, & Cox; and Fannin & Co., Dublin), Dr. R. Bartholow's *Practical Treatise on Materia Medica and Therapeutics* (H. K. Lewis), Thorowgood's *Student's Guide to Materia Medica* (second edition, J. & A. Churchill), Craig's *Manual of Materia Medica and Therapeutics* (fourth edition, Livingstone, Edinburgh; and Simpkin, Marshall, & Co.), Dr. Phillips's *Materia Medica and Therapeutics* (J. & A. Churchill), and Dr. Isambard Owen's manual of *Materia Medica*. Dr. Lauder Brunton's *Tables of Materia Medica* (new edition, Smith, Elder, & Co.) form a most comprehensive and valuable syllabus, and will be very useful to the student. Dr. W. H. Griffiths' *Lessons on Prescriptions, and the Art of Prescribing* (Macmillan & Co.) is a useful work. Messrs. Bentley & Trimen's *Medicinal Plants* has been mentioned under the head of Botany.

As text-books in the application of Electricity to Medicine, besides Dr. Althaus's *Treatise on Medicinal Electricity* (Longmans & Co.), the following are likely to prove useful to students; viz.—a *Text-Book of Electricity in Medicine and Surgery*, by Dr. G. V. Poore (Smith, Elder, & Co.); a *Handbook of Medical and Surgical Electricity, and How to Use a Galvanic Battery*, by Dr. H. Tibbitts (second edition, J. & A. Churchill); Mr. A. de Wetteville's *Practical Introduction to Medical Electricity* (H. K. Lewis); Dr. Robert Bartholow's *Medical Electricity* (Kimpton); and Dr. Hughes Bennett's *Electro-Diagnosis in Diseases of the Nervous System* (Lewis).

PATHOLOGY.

As a manual of pathology, Dr. T. H. Green's *Introduction to Pathology and Morbid Anatomy* (Renshaw) has gained a deservedly high reputation. *The Lectures on Pathological Anatomy* of Drs. Wilks and Moxon (second edition, J. & A. Churchill), and Dr. J. F. Payne's improved edition of Jones and Sieveking's *Manual of Pathological Anatomy* (J. & A. Churchill), are also good books. The first part of a translation of Dr. Ziegler's *Tenth-Book of Patholo-*

gical Anatomy and Pathogenesis, by Mr. D. MacAlister (Macmillan & Co.) has lately appeared. A second edition of an English translation of Virchow's treatise on *Post Mortem Examinations: the Method of Performing them*, is published by J. & A. Churchill. Messrs. Smith, Elder, & Co. have published a *Manual of Necroscopy*, by Dr. A. H. Newth, which is intended as a guide to the performance of *post mortem* examination. A work on *Surgical Pathology* by Mr. A. J. Pepper (Cassell & Co.) is announced. We would also strongly recommend students to consult, and to possess, if possible, Rindfleisch's *Manual of Pathological Histology*, edited by the New Sydenham Society. Other highly valuable works for reference are Dr. Greenfield's translation of Lancereaux's *Atlas of Pathological Anatomy* (J. & A. Churchill), and an English translation of a *Manual of Pathological Anatomy*, by Cornil and Ranvier (Smith, Elder, & Co.).

MEDICINE.

FOR the student who is commencing his clinical studies there are several very good guide-books. Among them are Dr. A. W. Barclay's *Manual of Medical Diagnosis* (third edition, J. & A. Churchill), Dr. S. Fenwick's *Student's Guide to Medical Diagnosis* (fifth edition, J. & A. Churchill); Dr. O. Sturges' *Introduction to the Study of Clinical Medicine* (Smith, Elder, & Co.); Dr. Finlayson's *Clinical Manual for the Study of Medical Cases* (Smith, Elder, & Co.); Dr. J. Little's *Note-book for Students beginning the Study of Disease at the Bed-side* (third edition, Fannin & Co.); and Dr. Warner's *Student's Guide to Medical Case-taking* (J. & A. Churchill.) More advanced students and practitioners may consult with advantage Dr. Da Costa's *Medical Diagnosis* (third edition, Smith, Elder, & Co.). As a guide in physical diagnosis, Dr. Gee's *Auscultation and Percussion* (third edition, Smith, Elder, & Co.) may be safely trusted. Other useful books for the same purpose are Dr. Flint's *Manual of Percussion and Auscultation* (J. & A. Churchill); Dr. Reginald Thompson's *Physical Examination of the Chest in Health and Disease* (H. Renshaw); Dr. S. West's *How to Examine the Chest*.

Among text-books in General Medicine, which may be recommended for the use of the student, are Dr. F. T. Roberts's *Handbook of the Theory and Practice of Medicine* (fifth edition, H. K. Lewis), Dr. J. S. Bristowe's *Treatise on the Theory and Practice of Medicine* (fourth edition, Smith, Elder, & Co.), Dr. Tanner's *Practice of Medicine* (edited by Dr. Broadbent), Dr. Aitken's *Science and Practice of Medicine* (seventh edition, C. Griffin & Co.); Dr. H. Hartshorne's *Essentials of the Principles and Practice of Medicine* (fifth edition, Smith, Elder, & Co.); Dr. Aitken's *Outlines of the Science and Practice of Medicine* (second edition, C. Griffin & Co.); Dr. Flint's *Principles and Practice of Medicine* (fifth edition, Kimpton); Dr. Charte-ris's *Student's Guide to the Practice of Medicine* (third edition, J. & A. Churchill); and Dr. A. Carter's *Elements of Practical Medicine* (second edition, Lewis). The advanced student and the practitioner will do well to consult Dr. Russell Reynolds's *System of Medicine* (five volumes, Macmillan & Co.); Trousseau's *Lectures on Clinical Medicine* (New Sydenham Society); Ziemssen's *Cyclopædia of the Practice of Medicine* (Sampson

Low & Co.); Dr. Niemeyer's *Text-Book of Practical Medicine* (H. K. Lewis); Sir Thomas Watson's *Lectures on the Principles and Practice of Physic* (Longmans & Co.)

SURGERY.

MR. ERICHSEN'S *Science and Art of Surgery* (seventh edition, Longmans & Co.), Mr. Holmes's *Surgery—its Principles and Practice* (third edition, Smith, Elder, & Co.), Mr. Bryant's *Practice of Surgery* (third edition, J. & A. Churchill), and Mr. Gan's *Science and Practice of Surgery* (second edition, Baillière, Tindall, & Cox), are all very complete works, one of which should be in the possession of the student. For those who prefer smaller and more condensed works, there is the well-known Druitt's *Surgeon's Vade-Mecum* (eleventh edition, J. & A. Churchill). Mr. Christopher Heath has brought out a *Student's Guide to Surgical Diagnosis* (seventh edition, J. & A. Churchill). Among the works more specially devoted to Practical Surgery, a foremost place is held by the late Sir William Ferguson's excellent *System of Practical Surgery* (fifth edition, J. & A. Churchill). Other books which may be consulted with advantage are, Mr. Holmes's *System of Surgery* (Longmans & Co.), Mr. Spence's *Lectures on Surgery* (A. & C. Black), Dr. S. D. Gross's *System of Surgery* (sixth edition, Smith, Elder, & Co.), and Billroth's *Lectures on Surgical Pathology and Therapeutics* (New Sydenham Society). Mr. Watson Cheyne's *Antiseptic Surgery* (Smith, Elder, & Co.) is a standard work on the subject of which it treats.

For the guidance of the student who is being instructed in practical and operative surgery, there are several good books. Mr. Christopher Heath's *Manual of Minor Surgery and Bandaging* (seventh edition, J. & A. Churchill) has for several years enjoyed a high reputation. *The Manual of Operative Surgery on the Dead Body*, by Mr. Thomas Smith and Mr. Walsham (Longmans & Co.); Dr. Berkeley Hill's *Essentials of Bandaging* (fifth edition, Lewis); Mr. Bellamy's *Student's Guide to Surgical Anatomy* (second edition, J. & A. Churchill); Mr. Joseph Bell's *Manual of the Operations of Surgery* (fourth edition, MacLachlan & Stewart); and Stimson's *Operative Surgery* (Lewis), are also works which can be recommended. A *Manual of Regional Surgery*, by Mr. F. A. Southam (J. & A. Churchill), is in course of publication. Other larger works, most valuable for reference—and to be procured by the student if possible—are Mr. Jonathan Hutchinson's *Illustrations of Clinical Surgery*, consisting of plates, woodcuts, &c., illustrating surgical diseases, symptoms, accidents, operations, &c. (published in fasciculi by J. & A. Churchill); Mr. C. Heath's *Course of Operative Surgery*, with coloured plates by M. Leveillé (J. & A. Churchill); and Mr. Norton's edition of Bernard and Huvette's *Text-Book of Operative Surgery* (Baillière, Tindall, & Cox); and Dr. Steven Smith's *Manual of the Principles and Practice of Operative Surgery* (Sampson Low & Co.). For the student of Military Surgery, Surgeon-General Longmore's work on *Gunshot Injuries* (Longmans & Co.) and Surgeon-Major Porter's *Surgeon's Pocket-Book* (second edition, C. Griffin & Co.), are essential. A translation, by Mr. Clutton, of Professor Esmarch's *Surgeon's Handbook on the Treatment of Wounded in War* (Sampson Low & Co.) is also a valuable work.

MIDWIFERY; AND DISEASES OF WOMEN AND CHILDREN.

THE text-books of Obstetric Medicine which hold the first place in the present day are, Dr. W. S. Playfair's *Treatise on the Science and Practice of Midwifery* (fourth edition, Smith, Elder, & Co.); and Dr. Leishman's *System of Midwifery* (third edition, J. Maclehose, Glasgow, and Macmillan & Co.). Every student should have one or the other of these. For those who prefer smaller books, Dr. D. Lloyd Roberts's *Student's Guide to the Practice of Midwifery* (second edition, J. & A. Churchill) will be useful; there are also Dr. Alfred Meadows's *Manual of Midwifery* (Renshaw); Milne's *Manual of Midwifery* (second edition, Livingstone, and Simpkin, Marshall, & Co.); and Dr. C. H. Carter's translation of Schröder's *Manual of Midwifery* (J. & A. Churchill). Drs. Robert and Fancourt Barnes are preparing a *Handbook on Obstetrics* (Smith, Elder, & Co.). As a work of illustrations, Dr. Martin's *Atlas of Obstetrics and Gynaecology*, edited by Dr. Fancourt Barnes (H. K. Lewis), is to be recommended. Dr. J. G. Swayne's *Obstetric Aphorisms* (seventh edition, J. & A. Churchill) are very useful. Dr. Barnes's *Lectures on Obstetric Operations* (third edition, J. & A. Churchill) should be in the possession of every advanced student and general practitioner; as should also the *Clinical History of the Medical and Surgical Diseases of Women*, by the same author (second edition, J. & A. Churchill). Dr. West's *Lectures on the Diseases of Women* (fourth edition, with additions by Dr. Matthews Duncan, J. & A. Churchill); Dr. Graily Hewitt's *Diagnosis and Treatment of Diseases of Women* (third edition, Longmans & Co.); Dr. Matthews Duncan's *Clinical Lectures on the Diseases of Women* (J. & A. Churchill); the late Dr. F. Churchill's work on the *Diseases of Women* (sixth edition, Fannin & Co.); Dr. Edis's *Diseases of Women* (second edition, Smith, Elder, & Co.); Mr. Lawson Tait's *Diseases of Women* (Williams & Norgate); Dr. Emmet's *Principles and Practice of Gynaecology* (second edition, J. & A. Churchill); Dr. Gaillard Thomas's *Practical Treatise on the Diseases of Women* (fifth edition, Kimpton); Dr. Heywood Smith's *Practical Gynaecology* (J. & A. Churchill); and Mr. Spencer Wells's treatise on *Ovarian and Uterine Tumours* (J. & A. Churchill), are all valuable books. Other books which will be found useful are Dr. Galabin's *Student's Guide to Diseases of Women* (second edition, J. & A. Churchill); Hart and Barbour's *Manual of Gynaecology* (second edition, Johnston); Dr. Halliday Croom's *Minor Gynaecological Operations and Appliances* (Livingstone, Edinburgh); and Simpkin, Marshall, & Co.; and Dr. Courty's work on the *Diseases of the Uterus, Ovaries, and Fallopian Tubes*, translated by Dr. Agnes MacLaren (J. & A. Churchill).

Among text-books on Diseases of Children, must be mentioned Dr. West's well known *Lectures on the Diseases of Infancy and Childhood* (Longmans & Co.); Dr. Fleetwood Churchill's treatise on *The Diseases of Children* (third edition, Fannin & Co.); Dr. W. H. Day's *Manual on the Diseases of Children* (J. & A. Churchill); M. Guersant's *Surgical Diseases of Infants and Children*, translated by Dr. Dunglison (Smith, Elder, & Co.); Meigs and Pepper's *Practical Treatise on the Diseases of Children* (H. K. Lewis); Dr. Eustace Smith's *Clinical Studies of Diseases in Children* (J. & A. Churchill); Dr. J. L. Smith's *Treatise on the Diseases of Infancy and Childhood*

(fourth edition, H. K. Lewis); Dr. Tanner and Dr. Meadows' *Practical Treatise on Diseases of Infancy and Childhood* (third edition, H. Renshaw); and Steiner's *Compendium of the Diseases of Children*, translated by Mr. Lawson Tait (J. & A. Churchill).

SPECIAL SUBJECTS.

THERE are several good text-books of the special departments which are taught in the schools.—For students of Psychological Medicine, the chief work is Bucknill and Tuke's *Manual of Psychological Medicine* (fourth edition, J. & A. Churchill). A volume of *Clinical Lectures on Mental Diseases*, by Dr. Clouston (J. & A. Churchill) is announced for October.—For students of Ophthalmic Surgery, Mr. R. B. Carter's *Treatise on Diseases of the Eye* (Macmillan & Co.); Mr. Nettleship's *Student's Guide to Diseases of the Eye* (second edition, J. & A. Churchill); Mr. Macnamara's *Manual of Diseases of the Eye* (fourth edition, J. & A. Churchill); Mr. Wharton Jones's *Manual of Ophthalmic Medicine and Surgery* (third edition, J. & A. Churchill); Mr. George Lawson's *Diseases and Injuries of the Eye* (fourth edition, Renshaw); Dr. H. W. Williams's *Diagnosis and Treatment of Diseases of the Eye* (Sampson Low & Co.); Mr. B. T. Lowe's *Handbook of Ophthalmic Surgery* (Smith, Elder, & Co.), are books that will be useful. Messrs. Churchill have also published the second edition of a little book by Mr. Charles Higgins, entitled *Hints on Ophthalmic Out-patient Practice*. Dr. de Wecker's *Ocular Therapeutics*, translated by Dr. Litton Forbes (Smith, Elder, & Co.); and Dr. Wolfe's work on *Diseases and Injuries of the Eye* (J. & A. Churchill), may be consulted with advantage. A second edition of a book by Mr. E. A. Brown, of the Liverpool Ear and Eye Infirmary, for instructing students *How to Use the Ophthalmoscope* (Trübner & Co.) is in preparation; *Manual and Atlas of Medical Ophthalmoscopy*, by Dr. Gowers (second edition, J. & A. Churchill), is a valuable work.—In Aural Surgery, Mr. Dalby's book on *Diseases and Injuries of the Ear* (second edition, J. & A. Churchill) is very good; there is also a book by Mr. G. P. Field on *Diseases of the Ear* (third edition, Renshaw); while Dr. Burnett's work on *The Ear: its Anatomy, Physiology, and Diseases* (J. & A. Churchill), and Dr. St. John Roosa's *Practical Treatise on Diseases of the Ear* (fourth edition, H. K. Lewis) are valuable and elaborate works. Dr. Macnaughton Jones has brought out a good *Practical Treatise on Aural Surgery* (second edition, J. & A. Churchill), and also a well-executed *Atlas of the Diseases of the Membrana Tympani and Auricle* (J. & A. Churchill).—For the use of students in Dermatology, there is the late Dr. Tilbury Fox's treatise on *Skin-Diseases, their Description, Pathology, Diagnosis, and Treatment* (new edition, H. Renshaw). Mr. Malcolm Morris's *Manual of Skin-Diseases* is a very reliable guide. Sir Erasmus Wilson's *Treatise on Diseases of the Skin*, and his *Lectures on Dermatology* (J. & A. Churchill) are well known and valuable works. Dr. Pullar has translated the *Text-Book of Skin-Diseases*, by Dr. Neumann of Vienna (Hardwicke & Bogue). Dr. R. Living's *Handbook on the Diseases of the Skin* (third edition, Longmans & Co.), is well deserving of recommendation; so also is Dr. McCall Anderson's *Treatment of Diseases of the Skin* (Macmillan & Co.). A *Practical Treatise on Diseases of the Skin*, by Dr. J. Nevins Hyde (J. & A. Churchill) has lately been

published. Dr. Tilbury Fox has supplied an excellent *Atlas of Skin-Diseases* (Renshaw); while a work with a similar title by Dr. Dühring, of Philadelphia (Lippincott & Co.) is also very good.—For students of Dental Surgery, the following books are published by Messrs. J. & A. Churchill: Tome's *Manual of Dental Surgery* (second edition); Tome's *Manual of Dental Anatomy* (second edition); Taft's *Practical Treatise on Operative Dentistry* (third edition); Sewill's *Student's Guide to Dental Anatomy and Surgery* (second edition, Churchill); Stocken's *Elements of Dental Materia Medica and Therapeutics* (third edition); and Coles's *Manual of Dental Mechanics* (second edition). A *Manual of Dental Surgery and Pathology*, by Mr. A. Coleman, has been published by Smith, Elder, & Co.

FORENSIC MEDICINE AND HYGIENE.

AS elementary works of convenient size, and containing valuable instruction, Dr. A. S. Taylor's *Manual of Medical Jurisprudence* (tenth edition, J. & A. Churchill), Husband's *Medical Jurisprudence and Public Health* (private edition, Livingstone, and Simpkin, Marshall, & Co.), and Guy and Ferrier's *Principles of Forensic Medicine* (Renshaw) are to be recommended. The more advanced student and the practitioner should consult Dr. Taylor's *Principles and Practice of Medical Jurisprudence* (third edition, J. & A. Churchill); the *Hand Book of Forensic Medicine and Toxicology*, by the late Dr. Bathurst Woodman and Dr. Tidy (J. & A. Churchill); Dr. Ogston's *Lectures on Medical Jurisprudence* (J. & A. Churchill); and the translation of Casper's *Forensic Medicine*, published by the New Sydenham Society. The last-named book describes the manner in which medico-legal investigations are carried out on the Continent. The first part of a work on *Legal Medicine*, by Dr. C. M. Tidy (Smith, Elder, & Co.), is a valuable book.

Under the head of Hygiene the principal books are, Dr. Parkes's *Manual of Practical Hygiene*, edited by Dr. de Chaumont (sixth edition, J. & A. Churchill); Wilson's *Hand Book of Hygiene and Sanitary Science* (fifth edition, J. & A. Churchill); Dr. A. H. Buck's *Treatise on Hygiene and Public Health* (Sampson Low & Co.); Dr. de Chaumont's *Lectures on State Medicine* (Smith, Elder, & Co.); Hart's *Manual of Public Health* (Smith, Elder, & Co.); and Hart's *Truth about Vaccination* (Smith, Elder, & Co.).

REVIEWS.

ARTICLE 1277.

Poltizer's Text-Book of the Diseases of the Ear.
Translated and edited by J. PATTERSON CASSELLS,
M.D., M.R.C.S., Eng. London: Baillière, Tindall,
& Co. 1883.

IN a single volume of 800 pages, Dr. Cassells gives us an English version of Poltizer's text-book, which in its original form appeared in two volumes. The work of translation must have been a laborious one; and we feel, therefore, grateful to Dr. Cassells for having undertaken it, and but little inclined to draw attention to any slight inaccuracies or to involved phrases which may have crept in here and

there. Dr. Cassells' merit does not, however, rest on the translation only, for he has added an appendix containing all the therapeutical formulæ throughout the work, in a form easy for reference, which materially increases the value and utility of the book. In this volume, all the diseases of the ear are treated systematically; but the style is so easy, and the treatment of the subject so thoroughly practical, that the work can be strongly recommended to the general practitioner. It is fully illustrated by woodcuts, those illustrating the appearance of the membrana tympani being in our opinion many of them excellent, and giving a better idea of the appearances seen than many coloured illustrations of diseased states of the membrane. It is much to be regretted, therefore, that the cuts, as reproduced in the English edition, are in many instances far inferior to the illustrations in the original.

There are many points to which we are tempted to refer after perusal of the book, but we are unable to do more than glance at one or two. The article on examination of the ear is very clear, and contains amongst numerous others an illustration of the author's universal aecometer. A chapter is devoted to diseases of the naso-pharynx and nasal cavities, with reference to the diseases of the middle ear; and their importance is such, that no book on diseases of the ear could now be considered complete without a description of these affections. The author speaks favourably of Zaufal's speculum. One of the best articles in the book strikes us as being that on chronic purulent inflammation of the middle ear and its complications, in which all the newest methods of treating this obstinate affection are discussed and compared. In the treatment of polypi with caustics, the author recommends chloride of iron (either in crystals or solution) very strongly. He also speaks very highly of washing out the tympanic cavity by means of warm water injected through the Eustachian tube (by means of the catheter), not only in chronic purulent inflammation of the middle ear, but also in obstinate cases of acute supuration, of course after the membrane is perforated.

In speaking of affections of the internal ear, the author admits that neither any special diagnostic guides, nor any peculiarity of the subjective symptoms and of the course of the disturbances of hearing alone, are sufficient for determining the diagnosis of an affection of the nerve. But experience, he finds, shows that only the total impression given by the results of the methods described, together with the causative conditions of the loss of hearing, with the peculiarities of the course and symptoms of the disease, can determine the diagnosis of an affection of the auditory nerve.

The work, which contains not only the fruits of the author's immense experience, but also the latest results of other observers in the same field, will be welcomed by all interested in the study of otology.

E. CRESSWELL BABER, M.B.

ARTICLE 1278.

Experimental Pharmacology. A Handbook of Methods for Studying the Physiological Action of Drugs. By L. HERMANN, Professor of Physiology in the University of Zürich. Translated with the Author's permission, with Notes and Additions, by ROBERT MEADE SMITH, M.D., Demonstrator of Physiology in the University of

Pennsylvania. With thirty-two Illustrations on Wood. Philadelphia: Henry C. Lea & Co. 1883.

It is with much satisfaction that we record the appearance in an English dress of Professor Hermann's well-known book on Pharmacology. This satisfaction is much enhanced by the able manner in which the translator has performed his task, his additions and annotations constituting nearly one-half the entire volume. In the introductory chapter, an excellent account is given of the object and scope of the science of Pharmacology. To this term we no longer assign the old significance which it bore as a synonym of materia medica. It now implies the science of the action of remedies, and the modes of investigation with which it deals are quite distinct from those followed in the study of pharmacy and pharmacognosy. It constitutes the chief basis for the application of remedies in disease, is closely allied to therapeutics, and may be regarded as the connecting-link between materia medica and the art of medicine. 'Pharmacology in its widest scope embraces the study of drugs from all possible points of view, and the information thereby acquired may be useful under the most diverse conditions; to the physician to enable the recognition and proper treatment of cases of poisoning, or to permit of the use of drugs for therapeutic purposes; to the public to permit the avoidance of noxious substances; to the physiologist and pathologist to enable the application of information derived from the study of the action of poisons to their sciences. The study of pharmacology can therefore be limited according as one or more of these points of view occupy the first place in the mind of the investigator. . . . Pure pharmacology is best advanced by the avoidance of any special standpoint in order that all of its bearings may be equally appreciated, and still more since the advancement of pure science is always retarded for a search for that only which promises immediately practical results. The history of the progress of the sciences teaches that nearly all the most important discoveries, even those subsequently of the greatest practical value, resulted from investigations untrammelled by a continuous mindfulness of the merely practical.' The object of pharmacology, we are told, is to acquire familiarity with the peculiarities and actions of poisons, to carefully analyse all processes which they evoke, so as to obtain a complete picture of their mode of action. Experiment must be the instrument most relied on in pharmacology, not only because it alone permits the study of all poisons in all doses and on the most various organisms, but because it is indispensable to the acquirement of any more profound knowledge of the *modus operandi* of poisons than can be obtained by a mere inspection of cases of poisoning.

In the succeeding chapters the authors deal with the methods of pharmacological investigation, the first section being devoted to a consideration of the action on the blood of various drugs and reagents. The modes of collecting blood, both arterial and venous, uncontaminated with foreign matter, are explained, and the alterations which may occur in the consistence, reaction, and coagulability, and in the gases of that fluid are considered. Each point is discussed in detail; and numerous examples and illustrations are given. The methods of testing the action of drugs on the muscles receive due attention, the lines of incision and the anatomical

arrangement of the parts being shown by diagrams. In Part II, practical directions are given for making injections into the blood-vessels and for the introduction of poisons in other ways. The graphic method is fully explained, the subject of blood-pressure tracings being illustrated by observations from the editor's papers on *sanguinaria Canadensis*. A good account is given of Roy's apparatus—although some of the most recent improvements in the mode of working are not noticed—and of the application to the mammalian heart by Professor Martin, of Baltimore, of the Leipzig method of maintaining circulation through the organs of warm-blooded animals so as to render possible the study of drugs on the isolated mammalian heart. The principle of this last-named method is 'to prevent circulation through all parts of the body of a warm-blooded animal but the heart and lungs; from want of blood, the brain, spinal cord, and sympathetic ganglia soon die, and so the heart is liberated from the control of nerve-centres outside of itself.' In the article devoted to the causes of the changes in the circulatory mechanism, the editor acknowledges his indebtedness to Dr. Lauder Brunton's lectures on that subject. The action of various drugs on the respiratory apparatus, on the digestive apparatus, on glandular organs, on temperature, on tissue-metabolism, and on the nervous and reproductive systems, is fully considered; in fact, within the compass of less than two hundred pages a vast amount of practical information is given, which is of the greatest use to students, and will be found invaluable to workers in the pharmacological laboratory.

WILLIAM MURRELL, M.D.

NOTES ON BOOKS.

ARTICLE 1279.

Sick-Room Chart. Published by W. H. Strickland, Pharmaceutical Chemist, South Kensington.—To secure accuracy in the administration of food, stimulants, and medicines, and in watching current symptoms, Mr. Strickland has issued night and day charts for the sick room, on which the nurse is expected to enter the hours, which are further divided into quarters, when the observations are made. Besides columns for nutriment, wine, and medicine, there are five others in the table to be appropriated to symptoms, comprising the duration of sleep, relief to the bowels, quantity of urine passed; together with pulse and temperature. These are all-important details, of which it is but right that the nurse should keep a note when in charge of any case whether critical or otherwise. But, while far from finding fault with attempts at tabulating records of a patient's progress, it is to be feared that, by refining so much as is indicated here by the fifteen minutes interval, the entries are more likely to be honoured by their omission than by their observance. Some years ago, it was the custom in more than one hospital to have tell-tale clocks in the wards, and, unless the nurse adjusted them every quarter of an hour, she had to bear the consequences of neglect; but it was soon found that the irksome character of the task distracted attention from more important duties. The object of Mr. Strickland's chart is of a more edifying character than the mechanical check alluded to;

and, if only adopted in a modified form, it cannot fail to prove serviceable to both medical man and nurse.

ARTICLE 1280.

Cerebral Hyperæmia. Does it exist? A consideration of some views of Dr. William Hammond. By C. F. BUCKLEY, B.A., M.D., formerly Superintendent of Haydock Lodge Asylum, England. New York, 1882. Pp. 129.—This is an amusing criticism of a recent pamphlet by Dr. Hammond on hyperæmia of the brain, and a common-sense exposition of the peculiar solecisms contained in that production.

NEW INVENTIONS.

ARTICLE 1281.

ILLUSTRATED CATALOGUE OF SCIENTIFIC INSTRUMENTS.

By CHARLES COPPOCK, F.R.A.S., &c.

MR. COPPOCK, of 100 New Bond Street, late a partner in the well-known firm of R. and J. Beck, has published a very complete catalogue of instruments, including microscopes, ophthalmic, meteorological, nautical, and surveying instruments, &c., and their accessories. The pamphlet is profusely illustrated, the engravings being exceedingly well executed. A considerable space is devoted to microscopes, to which Mr. Coppock has given much attention. Besides those sent out from his own factory, he incorporates in his catalogue others of some of the most eminent foreign makers, including the names of Prazmowski, Zeiss, Næcher, &c., and of the noted American firms, R. B. Tolles and W. H. Bullock, for whom he is the English agent. It is impossible in the limits of a short review to enumerate the many commendable instruments in these classes; but, in selecting the combination microscope for especial remark, we do so from its combined advantages and moderate price. It has been constructed, as the catalogue informs us, 'mainly from data obtained from consultation with the leading teachers of science in Edinburgh,' and we recommend all intending purchasers of microscopes to see this instrument before arriving at a decision. All the accessories connected with microscopical study are enumerated and priced, and in addition all the standard works bearing upon the subject are set down in the catalogue and the cost given. Astronomical, terrestrial, and naval telescopes, and transit instruments are next treated of, and in close companionship are binocular field and tourists' glasses. The next section embraces surveying instruments, and following them we are introduced to nautical instruments, amongst which will be found some interesting examples of compasses. Barometers occupy an important position, and are exhaustively illustrated and described; thermometers (including clinical) being no less prominent. Mr. Coppock next draws attention to anemometers, wind vanes, and air meters; and the sunshine recorder, and sun-dial, originally invented in 1853, by Mr. J. F. Campbell, of Niddy Lodge, Old Kensington, and which has proved a most valuable adjunct to our list of scientific instruments, finds a place in the catalogue and is copiously described. In the portion devoted to

ophthalmic appliances, Mr. Coppock again appears to advantage, having selected this section of his avocation for especial study. The remaining portions of the catalogue are devoted to the numerous if somewhat minor classes of instruments that help to make up the professional appliances usually found at such an establishment. In the August number of the *MEDICAL RECORD*, we gave a lengthened description of Mr. Cathcart's microtome, and it may be noted that every instrument sent out from Mr. Coppock's establishment can be relied upon both for quality and workmanship.

ARTICLE 1282.

SURGICAL INSTRUMENTS AND APPLIANCES.

TO know where to be able to obtain these desiderata at a moderate price is of great moment, not only to the student but to many practitioners, and the Student's Number of the *MEDICAL RECORD* is a fitting medium through which advice on the subject may be given to those whose circumstances render it necessary that they should be careful in their outlay. There are a few establishments where a large collection of instruments, second-hand as well as new, are to be found, many of the former being none the worse for having been used, and offered at a considerable reduction in price. Mr. Walter Lawley, of Farringdon Street, E.C., has a general and extensive assortment of all kinds of surgical instruments and appliances of this kind, of good quality and workmanship; and he holds an especially large stock of osteological specimens. Another feature in his collection is the general practitioner's pocket-case, containing a most complete equipment of instruments.

ARTICLE 1283.

SURGICAL APPLIANCES.

MR. K. R. SCHRAMM, of Belmont Street, N.W., who is favourably known amongst the profession, and whose inventions we have had occasion to speak of on former occasions, has recently made several little improvements in the supporting appliances with which his name is associated. Beyond studying each particular case for which an apparatus is made, wherever practicable each instrument or appliance is fitted to the patient by himself, and his work is considerably lighter than the majority of similar articles, and this has the effect of preventing breakage in a less ratio than in heavier work. We may mention in particular Reeves' universal shoe, Schramm's universal truss, the pelvic band, and the pelvic belt, as amongst the most notable of Mr. Schramm's productions. All these articles deserve to be more widely known. Dr. Protheroe Smith is the inventor of the band, and Mr. Schramm has carried out his ideas with great success.

ARTICLE 1284.

SANITARY ROSE POWDER.

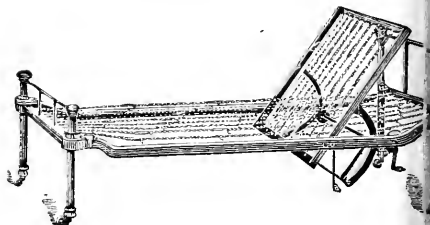
IN introducing this powder, Messrs. Woolley, Sons, & Co., of Manchester, the inventors and makers, have conferred a decided boon upon our very young friends, the babies; but, though ostensibly a nursery

powder, it will be found an equally pleasant preparation for adults. Unlike the usual violet powders, it is free from starch of any kind, is a soluble powder, antiseptic in its effects, and consequently not likely to interfere with the healthy action of the skin. In contrast with the many insoluble cosmetic powders now used, this preparation deserves very high commendation; it does not cake upon the skin, and is anti-irritant in its properties; while, as an antiseptic and deodoriser of excessive perspiration, adults will appreciate its advantages. In all cases of excoriation or chafing, the rose sanitary powder will be found a great alleviator, and it would be well if it were generally used in nurseries, and for toilet purposes.

ARTICLE 1285.

THE 'LIVERPOOL' SPRING MATTRESS FOR HOSPITALS.

AT the recent Exhibition at Liverpool in connection with the annual meeting of the British Medical Association, Messrs. Billington Brothers, of Upper Duke Street, in that city, exhibited several examples of their metallic spring mattresses for hospital and infirmary use. The material and arrangement are somewhat similar to others with which the profession, have been long familiar (we append an illustration of the invalid bedstead and mattress) but it has the advantage of being lower in price.



The material, tinned iron chain, which is braced to the bedstead (of iron) in longitudinal lengths, is freely interspersed with short coiled steel springs, and each length is connected with the others on either side with short pieces of chain. In one arrangement the springs are in the same position in every length of chain, and form a direct cross line, while in others they are fixed to form diagonal lines across the bedstead; but, not being connected transversely in the form of a rigid band, a greater amount of elasticity is obtained, each longitudinal strand expanding quite independently of its neighbour. The mode of fixing is simple and reliable, the hooks being carried over the frame of the bedstead and fixed on the outer section. Messrs. Billington also exhibited an infirmary litter of the same description, the framework of this being of wood. The value of metallic mattresses of this description from a sanitary point of view is so generally admitted, that it is quite unnecessary to urge any further recommendations in their favour.

At a representative meeting of the citizens of Aberdeen held lately, it was resolved to give a cordial invitation to the British Association to hold their annual meeting in Aberdeen in 1885.

MEDICAL NOVELTIES.

ARTICLE 1286.

HUGGETT'S MEDICATED SANITARY PASTILLES.

We have received from Mr. S. Huggett, of Liverpool, specimens of his Medicated Sanitary Pastilles for fumigation. They contain various volatile drugs, such as nitrite of amyl, creasote, carbolic acid, eucalyptus, and firwood oil. They are employed in much the same way as the ordinary pastille so largely used in sick rooms. The odour of the active ingredient in each is very perceptible.

ARTICLE 1287.

CHRISTIANI'S FLENTIBLE MEDICINE CAPSULES.

CHILDREN as well as their elders who have a repugnance to swallow nauseous medicines in their natural state will have cause to thank the inventor of these flexible capsules, which differ materially from those hitherto introduced. The material of which they are composed is perfectly transparent and tasteless, and the degree of compression to which they are capable when filled without bursting is remarkable, and is capable of adjusting itself to the smallest throat. They are made in six sizes, the No. 1 being adapted to the youngest child, and the largest, though containing a teaspoonful, may be swallowed by an adult without difficulty. As they are pleasantly flavoured, a child will be inclined to look upon them more as a 'sweet' than a medicine. The most recent form in which they have been introduced is 'Emulso Santali Alkalina'; and in overcoming the difficulty of enclosing a mixture containing water in a perfectly soluble capsule, the inventors have achieved a success that the profession will doubtless not be slow to appreciate. Each of these capsules of No. 2 size contains 15 minims of pure English santal oil and 10 grains of bicarbonate of potash, &c., and the preparations introduced into all of them, which include cod-liver oil, castor-oil, copaiba, &c., are of the best known makes. It must not be supposed that so manifest an advantage can be attained without an increase of cost over the medicine in its normal condition; but the inventors have priced them for sale at so moderate a rate that all who dislike to take nauseous medicines in the usual forms (and who does not) have the alternative at command. The address of the inventor is 11 Queen Victoria Street, E.C.

ARTICLE 1288.

MACKENZIE & CO.'S COMPOUND COD-LIVER OIL EMULSION.

THIS well-known firm, of Forrest Road, Edinburgh, the original inventors of the preparation above-named, which has secured for itself a well-merited success, have recently added pancreatine to the compound, which will no doubt be found to be an improvement in many cases. It appears that the introduction of the parcels post has already been taken advantage of by the firm for the diffusion of this preparation in particular, and enables them to send a sample bottle to any part of the kingdom at a most trifling cost.

MISCELLANY.

MEDICAL HOSPITALITY.—An entertainment fund has recently been endowed in the Philadelphia College of Physicians by Dr. S. Weir Mitchell. The income is to be used, under the direction of a standing committee, to defray the expenses of occasional receptions, at which refreshments suited to the dignified character of the society are to be provided. It is proposed to issue invitations not only to members of the college and other physicians, but also to laymen who may be identified with the intellectual welfare of the city.

MIDLE. VICTORINE BENOIT has gained a doctor's degree in the Paris Faculty of Medicine. Her 'Thèse' on 'Paralyse Infantile' won great praise from the judges, MM. Potain, Strauss, Rendu, and Monod.

BUQUOY ON PLEURISY IN CARDIAC DISEASES.—In this work M. Bucquoy's aim has been to show that frequency of pleuritic complications in the advanced stages of diseases of the heart in contradistinction to the relative rarity of hydrothorax properly so termed, notwithstanding the cachectic conditions in which they develop themselves. These pleuritis remain somewhat limited. They give rise to no considerable effusion, and are generally quickly cured. When the effusion is considerable and it aggravates the asthymia, it is advisable to perform thoracentesis, which in these cases gives excellent results.

FRENCH HOSPITALS.—A recent inquiry made by the Bureau of Public Assistance shows that there are at the present time in France 1,563 hospitals and asylums of all kinds, giving a proportion of one establishment for every 24,000 inhabitants. The officials and *personnel* of all these amount to 28,676 persons—viz. 2,787 physicians and surgeons, 3,050 dressers and hospital attendants, 11,286 on the religious staff, and 11,553 servants. The number of beds in the 1,553 establishments is 164,955, of which 71,192 are at the service of the sick, 54,245 for incurables and infirm patients, 16,050 for children, while 23,459 are reserved for those engaged on the nursing staff. With regard to ordinary cases, the number of patients admitted amounts to about 360,000 every year, with an average of 40,000 for special treatment. In general the proportion of admissions into the hospitals are 90 to every 10,000 inhabitants.

HOSPITAL ACCOMMODATION ON THE CONTINENT.—An article in the *Journal de Statistique Suisse* gives the following figures respecting the number of beds in proportion to the inhabitants in some of the countries of Europe, from which it appears that Switzerland is the best furnished with accommodation in this respect. The statistics are as follow:

Country.	Population.	Number of Beds.	Number of Inhabitants per Bed.
Switzerland ..	2,846,102	17,757	160
Wurtemberg ..	1,831,505	8,814	213
France ..	37,672,043	140,000	269
Hesse ..	834,218	1,975	443
Austria ..	21,747,069	58,251	399

Lunatic asylums or hospitals for the insane are not comprised in these figures. Switzerland contains fourteen of these establishments, which between 1877 and 1881 received 7,700 patients, of whom 4,044 were men and 3,656 were women, an average of about 1,540 new patients per year. Of this number the mental condition of 21.31 per cent. of the men and 2.81 of the women could be directly traced to the abuse of alcohol.

THE SHEFFIELD SCHOOL OF MEDICINE AND THE FIRTH COLLEGE.—Arrangements are being made for incorporating the Sheffield School of Medicine (which was established in 1828) with the Firth College, an institution of which the objects are similar to those of the Mason

Science College in Birmingham; and efforts are being made to raise the sum of money (5,000*l.*) necessary for the erection of new buildings.

SOCIAL SCIENCE ASSOCIATION.—The programme of the forthcoming congress to be held at Huddersfield, from October 3 to October 10, is issued. Among the papers announced is one by Mr. A. Herbert Safford: 'Is it desirable to provide for Criminal Children, whose ill-health renders them ineligible for Reformatory or Industrial Schools, some adequate training by boarding-out, or by a special industrial school?'; also papers by Dr. C. Meymott Tidy, and Mr. G. Latham Browne: 'Can the Law regulating the Sale of Poisons be amended, so as more effectually to prevent their employment for Criminal Purposes?' In the Public Health Department, Dr. Clifford Allbutt and Mr. J. Hepburn Hume contribute papers on the question: 'Is the Modern System of Education exerting any Deleterious Influence upon the Health of the Country?' The question of, 'Is it desirable to take any, and what, further measures to Prevent the Spread of Zymotic Diseases through the Milk-supply of our Towns?' is to be discussed in papers by Mr. Francis Vacher, Dr. Britton, and Mr. Ernest Hart. Papers will be read by Dr. Norman Kerr and Mr. Samuel Knaggs, on the question, 'Is it desirable to amend or extend the Habitual Drunkards' Act?'

RESEARCH teaches us that the abysses of the ocean are inhabited by creatures of a relatively highly complicated organisation, which support an enormous pressure and may exceed 500 atmospheres. The light of the sun never penetrates through these thick layers of water, and darkness is complete there. The visual apparatus therefore becomes useless; thus many animals are blind, or have only quite rudimentary eyes, but by a just system of compensation the organs of touch then take on an abnormal development. Finally, the absence of all vegetable growth below a depth of 200 metres induces for these creatures the necessity of a kind of food of which we can scarcely form an idea. It is therefore apparent that the influence of these biological conditions raises physiological questions of the greatest interest. M. Alphonse Milne-Edwards is now preparing to complete his researches on these points, and to pursue his explorations so far as the coast of Senegambia, as well as in that part of the Atlantic Ocean always covered with a bank of seaweed, and which is named the Sargassian Sea. He will be amply provided with the apparatus necessary for the study of the temperature, of the deep layers of pressure, of the composition of the gases dissolved in the water, and he will be happy to receive suggestions for novel researches from any naturalist who may be disposed to favour him with their ideas on the subject.

OWENS COLLEGE, MANCHESTER.—*Medical Department.*—The great increase in the number of students attending the school (which has wellnigh doubled since 1874), the extension of the courses of study, but especially a desire to give the fullest possible opportunities for teaching and investigation in the departments of Physiology, Pathology, and Materia Medica, led the governing body to sanction about two years ago great extensions of the so recently constructed buildings. These are now completed, and will be opened for regular work at the commencement of the session 1883-84. *I. Anatomical Department.*—This comprises—1. A dissecting-room, measuring 78 feet by 32 feet. 2. A bone-room immediately adjacent. 3. An anatomical workroom for the assistant-curator. 4. Room for the storing and preparation of subjects. 5. An 'articulating' room. 6. Professor's private room. 7. Demonstrator's room. *II. Physiological Department.*—This comprises (a) a lecture room set apart for the department, and furnished with every requirement for the special subject; this room admits of being perfectly darkened, and may be lighted either by gas or the electric light. (b) The Physiological Laboratory, which includes the following rooms:—1. A room for the practical classes in histology, sometimes also used

for physiological demonstrations. 2. A workroom for the use of regular laboratory students working at practical physiology and histology; this room is provided with several sets of recording apparatus, and with the great majority of the instruments and appliances needed in the study of practical physiology and histology. 3. A room primarily devoted to researches on the electromotive properties of the animal tissues and to physiological optics; this room is admirably lighted, and has one window specially constructed for experiments in which the heliostat is required; it admits of being rapidly and efficiently darkened by means of blinds, and will be lighted as occasion requires by gas light, and by incandescent or arc electric lights. 4. A photographic room, contiguous to 3, and arranged so that, if need be, photographic registration of phenomena observed by the aid of the galvanometer and the electrometer may be carried on, as well as for other applications of photography to physics and physiology. This room is provided also with an ophthalmoscope and laryngoscope. 5. A room for chemical balances. 6. A room for mercurial pumps and gas analysis. 7. A laboratory for physiological chemistry, comprising complete working facilities for twenty-four students, besides a thoroughly fitted-up demonstrators' table, and working space for making observations, &c. 8. A small workshop. 9. A small laboratory adjoining the lecture-room, in which will be stored those instruments and appliances specially used in the illustration of lectures. 10. A private laboratory for the professor. 11. A private study for the professor. 12. A small room for the gas-engine and dynamo. Certain of the principal rooms of the laboratory will be supplied with power furnished by the gas-engine, and will be fitted up so as to permit of recording cylinders being put in motion in any part of them. The laboratory is supplied with a very complete collection of apparatus required in teaching and investigating physiological phenomena. *III. Pathological Department.*—This is provided with—1. a students' laboratory, fitted up with work-tables and other appliances necessary for the study of pathological anatomy; 2. a professor's private laboratory; 3. a laboratory for surgical pathology, in which will be also lodged a typical collection of specimens illustrating surgical anatomy, for the use of students; 4. an Assistant Curator's room. The pathological collection is mainly lodged in one of the galleries of the Anatomical Museum. *IV. Department of Materia Medica, Pharmacy, and Pharmacology.* To this department belong 1. a large museum of materia medica; 2. a laboratory for pharmaceutical instruction and investigation; 3. a professor's laboratory, specially set aside for pharmacological work. *V. Department of Hygiene and Medical Jurisprudence.* Space has been assigned in the new buildings for a collection to illustrate these subjects. *VI. Department of Midwifery and Diseases of Women.* The collection illustrating the course of instruction in these subjects is lodged in the upper gallery of the Anatomical Museum. *VII. Lecture-Rooms.* With the exception of the courses on Physiology, Chemistry, Zoology, and Botany, which are given in lecture-rooms specially devoted to these subjects, the various lectures are delivered in two lecture-rooms, one of which accommodates nearly 200, and the other nearly 150 students. *VIII. Library of the Medical Society and Students' Library.* On the ground-floor of the Medical Buildings are situated the set of rooms in which are located the Library of the Medical Society of Manchester, under the terms of agreement entered into between the Society and the Owens College. These include 1. the Library, in which are lodged upwards of 26,000 volumes; this is one of the richest collections of ancient and modern medical books in this country; 2. a Student's Library; 3. a very handsome Reading-Room, specially reserved for members of the Medical Society, which will also be used for the meetings of the Society. The Medical Buildings also comprise a Student's Common Room, besides rooms for Professors and lecturers, Offices, &c.

The London Medical Record.

ARTICLE 1289.

BRICON ON THE BIBLIOGRAPHY OF CHOLERA-PARASITES.

BRICON (*Le Progrès Méd.*, No. 32, 1883) gives a summary of the bibliography of the cholera-parasite. Pouchet (*Infusoires Microscopiques dans les Déjections Cholériques*, Acad. des Sciences, 23 Avril, 1849), and Wahl (Virchow's *Archiv*, 1861) described the *vibrio rugula* in cholera stools; and the observation was confirmed by Hassall in 1873. In the same year Pouchet, Brittan, Swayne, and Budd described *annular bodies*, *cholera-cells*, and *cholera-fungi*, classed by Busk and Williams as belonging to the tribe *Uredo*. Grove saw *granular bodies* in the urine of cholera patients. Klob (*Path. Anat. Stud. über das Wesen des Cholera-processes*, Leipzig, 1867) found *zooglaa* colonies, which developed into *leptothrix*. Thomé (Virchow's *Archiv*, Band xxxvii., 1867) described a fungus which he called *cylindrotentium cholerae Asiatica*.

Pacini, in 1854, noticed the presence of numerous bacilli in cholera-stools, which multiplied in the intestinal epithelium and destroyed it. Boucharlat (quoted by Nicaise, *Etude sur le Choléra*, Paris, 1868) thought cholera due to a poison produced by infusoria, which produced the fermentation of the marshes of the Ganges.

Hallier (*Das Cholera-Contagium*, Leipzig, 1867) attributed cholera to micrococci, which were spores of *urocystis occulta*. (*Parasitologische Untersuchungen*, Leipzig, 1868, p. 49-51. Die Cholera-Untersuchungen der Engländer in Ost-Indien, *Zeitschrift für Parasiten-Kunde*, Jena, 1869, p. 216; *Zur Geschichte des ersten Ausbruchs der Cholera in Hamburg*, Jena, 1870, p. 87).

Gietl (*Die Cholera*, Munich, 1855) ascribed the disease to parasitic organisms. Lewis and Cunningham (*Microscopical and Physiological Researches into the Nature of the Agent or Agents producing Cholera*, Calcutta, 1872) found and described in cholera-blood masses of protoplasm, larger but more transparent than the white blood-discs, without nuclei or cellular membrane, endowed with amoeboid movements and containing very fine granulations.

Danet (*Des Infinites Petits rencontrés chez les Cholériques*, Paris, 1873) attributed cholera to a cryptogam, having great analogies to *oidium albicans*, but differing from it by a more abundant mycelium, larger size, and more frequent absence, especially in the young state, of the transverse septa of the sporiferous cells. He maintained that it was the same organism that had been described by Thomé, Pacini, and Klob.

Nedsocki (*Zur Micrographie der Cholera*, Dorpat, 1872) found bacteria in the dejections and vomit, urine, blood, &c., of cholera patients.

Martin (*Entstehungs- und Verbreitungsweise der Cholera*, *Wiener Med. Wochens.*, 1873), and Schweninger have seen the urinary tubules completely blocked with bacilli.

Hayem and Raynaud (*Société Méd. des Hôpitaux*, 1873, pp. 262 and 267) found numerous organisms in cholera-stools, but no special form. There were three species, bacterium, vibrio, and bacteridium

(Davaïne). Such parasites are found in all stools in health or disease, and at any time of life.

ROBERT SAUNDY, M.D.

ARTICLE 1290.

KOCH ON THE DETECTION OF MICRO-ORGANISMS.

THE older methods employed under the names of aëroscopy, &c., for the microscopical examination of solid particles floating in the air, and arrested by cotton, glycerine, &c., failed to distinguish living and dead organisms, even organic and inorganic matter. The liquid cultivations, with which the name of Pasteur is associated, do so much; but the fluid, turbid to the naked eye, exhibits under the microscope only a confused mass of organisms of all kinds, and is totally unfit for artificial cultivation, since it gives no means whereby the products of the implanted germs may be distinguished from those which have gained access by accident.

The principle of pure cultivation, viz., the employment of a solid medium, we owe to Koch; and in his hands it has recently been so improved as regards details, that it has become to some extent both a qualitative and a quantitative test. In his address to the Aertzetag at Berlin, read on May 23 last, Dr. Koch describes the methods he employs at present in the bacterioscopic examination of earth, air, and water. (The paper is published in the *Allgemeine Med. Central-Zeitung* for July 2.)

For the examination of air he takes a freshly boiled potato, slices it, and, after exposing a slice for a short time to the air in question, allows it to stand some days in a warm room under a bell-glass, covered with wet blotting paper; the glass, like all other apparatus, having previously been sterilised by heat. After a few days, the potato will be seen to be covered with points of various colours, each point representing the progeny of a single germ or organism. Numerous species may be recognised even by the naked eye, but each patch, of course, consists of but one.

Another method consists in the employment of a thin slice or solution of gelatin, 5 per cent. or 10 per cent., according to the temperature of the place or season. This may be used alone, or as the means of solidifying any desired fluid. A favourite cultivation fluid of Koch's, especially suited for bacteria, consists of veal broth or other infusion of meat with 5 per cent. of gelatin, 1 per cent. of dry pepton, 0.5 per cent. of table salt, and carbonate of soda to exact neutralisation. These media are sterilised by boiling.

For the examination of air, a small glass cup, containing some of the gelatin previously sterilised, is let down by a strip of brass foil to the bottom of a glass cylinder closed by a large plug of wadding. The whole apparatus and contained air are then sterilised by long exposure to a temperature of 100° C. When the size has set, the vessel is taken to the place to be examined, and the plug removed for two, twelve, or twenty-four hours, so as to allow the germs to settle down on the surface of the size; the plug is replaced, and two or three days are allowed for their development into colonies, as described in the case of the potato. The size, or thin gelatin, has this advantage over the potato that, being transparent, it can be examined by transmitted as well as by reflected light.

For quantitative examinations, i.e. to ascertain how many germs are present in a given volume of

air, Dr. Koch employs a special apparatus designed by Dr. Hesse, in which the gelatin is spread over the floor of a horizontal tube as a layer of uniform width; and, by means of an ingeniously contrived method of aspiration, a known volume, from 2 to 20 litres of air, is drawn through the tube so slowly that the germs, sinking to the bottom in virtue of their gravity, are all deposited in transit on the gelatin in the first half of the tube.

For the examination of water, Dr. Koch formerly shook up a certain number of drops of water in question with liquefied gelatin in a test-tube. But quite recently he has adopted a modification of this method, which permits a numerical estimation of the viable sperms in water, and, as a corollary, a comparison of several waters: this he has satisfactorily applied to the river waters, sewage, effluents, and potable waters of Berlin. (See *SANITARY RECORD* for Feb. 15, 1883.)

A quantity of the water to be examined, varying according to the purity as gathered from an ordinary microscopic examination, from several drops down to 101 of a drop—i.e. a drop of a corresponding dilution—is intimately mixed with the gelatin, and spread out as a thin film on a sterilised glass slide, covered with a bell, and examined with a lens of about thirty diameters after the lapse of thirty to sixty hours. The colonies appear as vacuoles in the gelatin; and to count them a thin glass cover, ruled in square centimètres, is laid on the slide: the number in each of several squares is taken, and from the mean of these the number first in a drop and then in a cubic centimètre is calculated. Good waters will yield fifty to one hundred colonies to the centimètre, unfiltered river waters as many thousands, while in sewage they are to be reckoned by millions. At present, he has not been able to distinguish between pathogenic and other bacilli, but he entertains serious hopes of progress in this direction.

In examining earth, he merely sprinkles over the surface of the coagulated gelatin fine particles of the soil. In the moist atmosphere of the bell, the germs adhering to the particles of earth soon develop into colonies. A curious result of these experiments, and one that has a direct bearing on the action of the earth in purifying sewage, is that, while bacteria swarm near the surface, there are but few at a depth of two feet, and practically none at three.

We may here subjoin some estimates of the number of viable germs found by Koch in a cubic centimètre of each of the waters around Berlin, valuable for the light they throw on the effect exerted on water by filtration through earth, and on the vexed question of the influence of sewage effluents on running streams.

In Berlin sewage	38,000,000
Effluent from the irrigation areas ...	87,000
Effluent, after mixing with the water of the Wuhle and before being discharged into the Spree	52,000
The Spree above the outfall of the Wuhle	115,000
The Spree below the outfall of the Wuhle	118,000
Rummelsburger See (a lake used for a water-supply)	32,000
Waterworks at Stralau, before filtration	125,000
" " " after filtration	120
Good Spring waters	100
Distilled water	5

[These figures are not in the paper referred to above, but are taken from the Report of the Royal Commissioners on the Berlin Sewage Works.]

E. F. WILLOUGHBY, M.B.

ARTICLE 1291.

BALDI ON THE SECRETION OF THE BILE.

BALDI (*Lo Sperimentale*, April 1883) says that the saliva, gastric juice, pancreatic, and intestinal secretions, as regards their flow have these characteristics in common. In normal conditions, they are regulated by the presence or absence, as well as by the nature, of the food in the digestive apparatus; and in abnormal or experimental conditions they can be excited, and in various ways modified, by different stimuli, mechanical, electrical, or chemical. The author's experiments were made with the object of determining whether the biliary secretion comported itself in an analogous manner to the other digestive secretions, and whether it was determined by the same conditions or whether it differed in any essential manner. Three large healthy dogs were operated on, and a permanent fistula of the gall-bladder—the common bile-duct being tied and excised—was made in each, and the dogs allowed to recover perfectly. During the experiment, the dogs were fastened up in the apparatus of Ludwig, so as to collect the bile regularly and without intermission. The quantity of bile secreted in each hour was carefully measured, and then evaporated to dryness and weighed. The author gives tables arranged to show diagrammatically the results he obtained. The first thing which strikes one on examining these tables, is the singular irregularity of the flow of the bile, which alone is sufficient to distinguish it from the other digestive secretions. The second is the constant want of relation between the quantity of water and the biliary solids; so that not only the quantity but the density oscillates greatly from hour to hour. Examining the diagrams as to the possible influence exercised by digestion and absorption of food, it is difficult to arrive at any definite conclusion. Confronting the sum total of the bile and dry residuum secreted during fasting and the hours preceding a meal, with the amount secreted in the same time after a meal, one finds that, as a rule, more bile is secreted after a meal; but this rule has many exceptions, and the increase of bile is not conspicuous, and has reference more to the amount of water than to the dry residuum. During the hours of fasting the flow is much the same as during those of digestion, the secretion is continuous, but oscillates capriciously from hour to hour in quantity and density. Neither does starvation altogether arrest the flow of bile: in the necropsy of a dog who died of inanition, Professors Luciani and Bufalini found the gall-bladder full, and much bile in the otherwise empty intestine. All experiments tend to prove that the bile as a secretion has, from the physiological point of view, more analogy to the urine than to the digestive fluids.

The author's next experiments were on the action of certain reputed cholagogues, podophyllum, rhubarb, jalap, alkaline Carlsbad water, phosphate of soda, and pilocarpine. The drug was dissolved or suspended in water, and introduced into the stomach by the œsophageal tube. These experiments were made on one dog only, and that after its nutrition had gravely suffered; this always happens

after a time with a biliary fistula, notwithstanding plenty of nourishment. The biliary secretion progressively diminishes as the animal loses weight; it becomes intermittent instead of continuous, so that in some hours little or none is secreted. Not one of the drugs tried influenced the flow of bile; there was no cholagogue action early or late; indeed, after some drugs, rhubarb, phosphate of soda, and jalap, there was at first decided diminution of the flow. These experiments are too few to settle the question as to the cholagogue action of these drugs.

Baldi's results so far tend to prove that the liver, as the secretory organ of the bile, must be considered as an emunctory for the waste materials of the different tissues destined to be expelled. This accords with the researches of Schiff, who has shown that the bile poured into the intestine is in part re-absorbed and taken back to the liver by the portal vein, to be again excreted and returned to the intestine. Some observers doubt if the biliary matters absorbed into the blood pass again in the secretion of the liver, thinking it possible that they may serve only to excite increased secretion without passing out again by the liver. Having repeated Schiff's experiment of injecting bile into the stomach and directly into the blood, the author shows that the liver, rather than the kidneys, expels the biliary matters from the blood. When ox-bile was injected into the stomach, the secretion of bile increased enormously, the bile having taken the green colour of the ox-bile. The same happened when the bile was injected into the blood direct, whilst the urine showed no trace of biliary acids by Pettenkofer's test. All the bile was expelled by the liver, and not a trace by the kidneys. Admitting that the biliary acids (the only true specific elements of bile) are the exclusive products of the hepatic cells, and this remains to be directly proved, the fact is nevertheless true that the biliary secretion is distinguished in a characteristic manner from the other digestive fluids, by the irregularity of its flow and by its independence of any decided exciting influence of food or medicine. It presents instead many points of contact with the urinary secretion; both depend essentially on the collective waste of the organism, the liver having an excretory faculty for the biliary materials, just as the kidneys have for the urinary materials.

G. D'ARCY ADAMS, M.D.

ARTICLE 1292.

SULZER, DEUTSCHMANN, AND CZERNY ON BLINDING OF THE RETINA BY SUNLIGHT.*

WE have in Sulzer's paper an account of four cases of defect of vision due to the solar eclipse of May 1882. In all the symptoms came on immediately, and lasted for several weeks; in two of them, indeed, the sight was still very defective at the date of the last examination, six months after the exposure. There were changes detected by the ophthalmoscope in the region of the macula in all, visible as a dark pigmentation. In the worst cases there was a

greyish-yellow spot in the centre of this area. Deutschmann also gives four cases of a like nature.

Analogous cases were described first by Mackenzie, and afterwards by Jaeger, Arlt, Dufour, Haab, Czerny, and quite recently by Swanzy of Dublin.

Jaeger described fourteen cases due to direct observation of the eclipse of 1851. In eight of them no material change was found; in four, there was choroiditis with distinctly visible exudation; in two cases, disturbance of vision and ultimate blindness were caused by malignant disease (Krebs) of the choroid, which Jaeger believed to be primarily due to the observation of the eclipse.

Due to the same eclipse, Arlt described one case of obscuration of vision, in which the structural change was considered to be chronic retinitis.

Dufour brought forward a case due to the eclipse of July 1879. Four days afterwards, the whole macula was occupied by a dark brown pigmented patch, with a round yellowish-white sharply defined spot in its centre. Eight days later the brown pigmentation of the macula had visibly faded, and in ten days more this region looked perfectly normal. Several months later, the vision had not increased beyond $\frac{1}{2}$. He was the first to compare the extent of the non-percipient area of the retina (measured by the size of the positive central scotoma) with the size and form of the retinal image of the unobscured part of the solar disc. He found that the affected retinal area, a few days after the exposure, was in its greatest diameter twice as large as the greatest diameter of the retinal image. He explained this, as well as the dissimilarity between the shape of the affected retinal area and that of the retinal image, by assuming that the patient had not observed the sun with perfect steadiness.

Our author, in one severe case, measured the non-percipient part of the retina four days after the eclipse, and again forty days later, and found that the greatest diameter had increased three-fold during this interval. He accordingly argues that the extension, and the difference in size and shape between the affected retinal area and the retinal image, must be due to a gradual extension of the inflammatory process originated by the exposure. In this case, he found that some months after the injury the non-percipient retinal area had again diminished, from absorption of the inflammatory exudation.

Dufour has recently endeavoured to connect the structural changes causing the scotoma with the physiological processes occurring in the illuminated retina. He believes that the loss of sight is caused by destruction of the visual purple, swelling, and possibly partial breaking down of the rod and cone layer (analogous to the increased breadth of the rods in the illuminated retina of the frog described by Hornbostel), and a slight non-inflammatory alteration of the pigment-epithelium.

Czerny's experiments on the lower animals tend to prove that the process is really a pathological one. He focussed solar rays directly upon the retina, so as to cause blindness, and found that he had produced an exudative inflammation in the retina and choroid. In an eye removed immediately after the exposure, he found that the processes of the pigment-epithelium had advanced between the rods and cones as far as the external limiting membrane, and that the outer segments of the rods were somewhat curved at their outer ends. In an eye excised three days later, the outer part of the rod layer had

* SULZER.—Cases of Retinal Affection Due to Direct Observation of the Eclipse of May 1882. (*Klin. Monatsbl. für Augenheilk.*, April 1883.)

DEUTSCHMANN.—Blinding of the Retina by Direct Sunlight. (*Von Graef's Archiv*, Band xxviii., Heft iii., p. 241, 1885.)

CZERNY.—On Blinding of the Retina by Sunlight. (*Sitzungsber. der Wiener Acad. der Wissensch.; Math.-Naturwiss. Cl.*, Band lvi., Abth. 2.)

entirely broken down, and there were masses of pigment as far forward as the internuclear layer. At the periphery of the affected area, the pigment-epithelium appeared to be in process of rapid proliferation. In the duck he also found an inflammatory exudation between the chorio-capillaris and tapetum nigrum, with much injection of the neighbouring vessels. As a final result, there was atrophy with pigmentation of the retina at the affected spot, with complete atrophy of the choroid. By shutting off the invisible heat-rays, he found that these changes were really produced by the light-rays.

The ophthalmoscopic appearances in all the cases can be explained by these observations of Czerny. The dark pigmentation of the region of the yellow spot present in all was doubtless due to the secondary hyperplasia of the pigment-epithelium, while the greyish-yellow spot seen in the centre of this area in the graver cases was a chorio-ido-retinal exudation. Whether the destruction of the outer parts of the rods and cones found in the lower animals existed in the severer cases above mentioned cannot be determined with certainty; but the loss of function, in the form of a positive central scotoma, persistent after absorption of the inflammatory exudation, renders such an explanation very probable. The arterial hyperemia described by Czerny was distinctly visible ophthalmoscopically in two of the four cases. Indeed, the essential structural changes in this affection of the retina are characteristically not of the nature of physiological processes, in so far as they first appear after discontinuance of the exciting cause, and may continue to progress for a long time independently of it.

R. MARCUS GUNN.

ARTICLE 1293.

SCHÖNFELD ON A CASE OF THOMSEN'S DISEASE.

IN the MEDICAL RECORD for May of the present year we noted an account of this affection, by Dr. Westphal. The following case, the clinical history of which is fully given by Dr. Schönfeld (*Berliner Klin. Wochens.*, July 2), may be regarded as supplementary thereto. A recruit frequently when at drill fell to the ground, sometimes face forwards, sometimes on his back. There was no loss of consciousness, nor giddiness. He would quickly recover and return to his duty, which he showed no disposition to avoid. He was sent to the garrison hospital, and closely watched as to the possibility of simulation. His age at this time was twenty-one years. Up to the age of fourteen he had suffered no serious illness; his mother was living; his father had died with rheumatism at the age of fifty-two. Several members of his family were subjects of rheumatism. When he was fourteen years old he was bitten in the leg by a dog; the wound confined him to his home for several weeks. He was greatly frightened and frequently complained of pains in his limbs; it was only with considerable effort that he could work, and was occasionally seen to fall, without loss of consciousness. On one occasion, getting into a railway car, his legs suddenly stiffened, so that he could not raise his feet from the ground, and was obliged to be lifted by his comrades into the train. He complained that his legs would suddenly, while walking, become rigid, so that he must stand still or fall. He suffered also from troublesome pruritus of his lower extremities. He had not experienced

similar sensations in the upper extremities. In November of the previous year he entered the military service, and since then had become steadily worse, so that he would fall several times a day, and had begun to suffer from the stiffness in his arms also.

In April of this year he was admitted into the garrison hospital. His condition at the time is thus described. He was a middle-sized, strongly built man, without any obvious muscular hypertrophy. On the calf of the left leg were numerous scars from the size of a pea to that of a bean, left by the dog-bites already mentioned. The abdominal and thoracic organs presented nothing abnormal. Investigation of the nervous system elicited nothing abnormal. The knee-phenomena were very distinct. Mechanical and electrical stimulation of the muscles showed no deficiency of their excitability. If the patient stood for ten minutes on one spot and were then ordered to step forward, it was wholly out of his power to do so. Slowly and with evident difficulty he could raise one limb until it was bent at an angle of about 120° on the pelvis, whilst the other limb would be bent backward at the same angle. If he fell to the ground he could only by a great effort rise again in about five minutes, and was in danger of falling again. After sitting for some time, it was not easy for him to assume the erect posture—his legs would become stiff. Passive movements of the limbs induced a resistance on the part of the muscles. Similar muscular conditions were sometimes also observed in the upper extremities. His speech was slow and drawling, but if not hurried he could pronounce even difficult words; but it was absolutely impossible for him to speak words which required rapid movements of the tongue.

In this case, its etiology must clearly be sought in the shock to his nervous system recorded above; hereditary influence could not be traced.

W. B. KESTEVEN, M.D.

ARTICLE 1294.

SOUTHEY, BARLOW, AND MAHOMED ON SYMMETRICAL GANGRENE.

DR. SOUTHEY has reported the following case to the Clinical Society of London.

F. N., aged 9 (admitted into the Matthew Ward, St. Bartholomew's Hospital, November 25, 1881), was much emaciated, his hair thin and falling off, his abdomen empty and retracted, skin dry; and he was in a curious, excitable, semi-delirious mental state. He presented a gangrene of the tip of his right index finger; all his extremities felt cold, and he had insomnia. His pulse was 148, very feeble. Respiration, 32. Temperature, 99°. His heart beat with feeble impulse, in the normal situation. There was no increase of normal cardiac dulness; no cardiac murmur; no physical signs of lung-disease. Neither liver nor spleen transcended its normal limits. His appetite was bad; he had had no sickness; the bowels acted once daily; the tongue was clear and moist; micturition gave no pain; the urine was scanty, not abnormal, chiefly passed with his stools. After a few days the thumb and second finger of the same (right) hand were similarly involved; they first became red and throbbled, then livid, and finally gangrened. On December 5 exactly similar spots occurred on the pinna of the right ear, and on the extremity of his nose, and on the tip of the middle finger

of his right hand. A little later subcutaneous mottings (tâchetés) appeared all over his trunk and limbs, and developed into a raised rash, like urticaria tuberosa, or erythema tuberculatum. The spots first itched, then became painful and tender, but gradually subsided, leaving only some pigmentation to mark their sites. Finally, all the fingers and the thumb of the right hand became gangrenous and slowly separated; also the thumb, index, and little finger of the left hand. He passed into a condition of most extreme prostration, with broncho-pneumonia of both lungs, and only very slowly and gradually recovered from it. In January 1882, a new and interesting clinical feature was manifested, namely, intermittent true hæmaturia, bloody urine being passed alternately with normal-coloured non-albuminous urine. On some days, distinct blood-cells were passed with the urine; on others, blood-colouring matter without blood-cells; on others, albumen with blood enough to give the blood-reaction only. Oxalate crystals were present in great abundance when the hæmaturia was abundant, and *vice versa*. No tube-casts were ever noticed. All symptoms of urinary disorder disappeared in July 1882, when the child was discharged well, but with the loss of his fingers. He had been seen several times since.

Dr. Barlow said he had never seen so severe a case of the disease as that described by Dr. Southey, but he had seen two or three which were less severe. As Dr. Southey had observed, the most important feature they presented was not the gangrene, but the vaso-motor disturbances. In one case, within his own experience—that of a man aged 35, who had been generally regarded as rheumatic—the attacks which usually occurred in winter, were ushered in by pain in the lower extremities, which was followed by the appearance of bluish-red patches on the integuments. When first seen by Dr. Barlow, he had just suffered an attack, and there was a distinct patch on one trochanter, while one toe was the subject of local gangrene, and all his toes were blue. In two other cases observed, in female children, 3½ years old, the attacks occurred between September and April, being rare in summer, and were in the latter case associated with sudden changes in temperature. In one child, the lower limb affected was, when seen, intensely painful and black from above the ankle to the toes, and presented a most alarming appearance. It remained thus for about three hours and then passed off, the child seeming quite well again. She had several attacks of the kind in the legs and forearms. The attacks occurred on cold days in the other case also, and on several occasions were accompanied with violent stomach-ache, while, two or three hours subsequently, dark-coloured urine, containing hæmatin, oxalate crystals, and albumen, would be passed, but only once after each attack. Dr. Barlow considered that the disease presented many points in common with that known as paroxysmal hæmaturia. It was a disease of winter, and was usually preceded by a condition of sleepiness; its resemblance to ague-attacks was not well marked, for there was no sweating stage observable, the cold stage being the principal one. He had elicited from the mother of the patient presenting typical paroxysmal hæmaturia, that the child's finger-ends grew distinctly blue during the attack, and so familiar was the appearance, that no special heed was paid to it. Dr. Barlow thought that the application of cold was a more rational treatment than the employment of warmth, being

led to this opinion from his knowledge of the effects produced by cold in the treatment of frost-bites. He mentioned the case of a child, which—a sufferer from paroxysmal hæmaturia, and accustomed to be washed in warm water—was submitted to the influence of cold water, with good results. The constant current applied down the back had been employed by Reynaud, with a view to diminish the irritability of the vaso-motor centres, and with success. A patient of his own had described how this treatment was the only one which had done him much good while in St. Bartholomew's Hospital, and the method was certainly worthy of extended trial. There was no confirmation forthcoming of the association of rheumatic gout with the disease in his cases. Mr. Hutchinson, however, had described a connection between end-joint arthritis and Reynaud's disease; and a patient under his (Dr. Barlow's) care might be taken to confirm this opinion.

Dr. Mahomed had seen two cases similar to that mentioned by Dr. Southey. In one, intermittent hæmatinuria had existed, and crystals of oxalates were found in the urine. He explained that this frequent association of intermittent hæmatinuria with symmetrical gangrene effectually separated such cases from those dwelt on by Mr. Cripps; and, moreover, the patients in the former cases were not necessarily endowed with a feeble circulatory apparatus. A few male patients of his own had suffered from the disease in a more or less chronic form for seven or eight years. The fingers presented a gangrenous appearance, which varied with the weather, but was not improved by treatment. The tips of two or three fingers had been quite lost. In summer time, the hand was quite useful.

ROBERT SAUNDEY, M.D.

ARTICLE 1295.

OLLIER ON RESECTION OF THE KNEE.

ONE of the most important contributions on practical surgery during the present year is an original memoir (*Revue de Chirurgie*, Nos. 4 and 5, 1883) by Professor Ollier on resection of the knee, giving the results obtained from this operation in the surgical clinique of Lyons during the year 1882. M. Ollier states that formerly he was opposed to this operation, and, on account of the high mortality—75 to 80 per cent.—which followed his first attempts, he thought it preferable in cases not amenable to treatment by rest, drainage, and incision of abscesses, to have recourse to amputation in the thigh, the mortality of which operation in such cases was about 40 per cent. At the present day, however, owing to antiseptic dressings, the proportion is completely changed. Of seven cases in which resection of the knee has been recently performed by Ollier, one only was fatal; and in this death occurred very soon after the operation, and was due to shock. The mortality of resection of the knee has thus been reduced from 80 to 14 per cent., and the motives which formerly induced the surgeon to abstain from performing this operation no longer exist. The use of Lister's dressings, with which M. Ollier associates iodoform, have completely changed the conditions of operative surgery in the clinique at Lyons. As an example of this, M. Ollier states that, during the six months just previous to the date of his paper, he had performed twenty-two major operations (resections of large joints, amputa-

tion in the thigh and leg) without having had a single bad result through infection. Resection of the knee, which now, in M. Ollier's opinion, claims a place in the first rank of conservative operations, is applicable to three principal conditions: osteo-arthritis, or suppurative fungous arthritis; comminuted fracture, or gun-shot wounds involving the joint; ankylosis in a bad position. Thus the resection may be pathological, traumatic, or orthopedic.

M. Ollier does not approve of performing resection of the knee on children in whom osteo-arthritis usually yields to the expectant treatment, and the limb after the resection is likely to become very much reduced in length. He would not, therefore, practise the operation on any subject under the age of eight years and a half. In older patients, the indication for resection of the knee exists not only when the removal of the osseous extremities is absolutely necessary for the preservation of life, but is presented also when it is desirable to remove the source of a suppuration which, though not threatening to become immediately fatal, may prove so at any time, and which condemns the patient to long confinement in bed, and causes all the bad results of a chronic discharge. Formerly, it would have been more prudent under these conditions to undertake a natural cure; but now, M. Ollier holds, it would be blamable not to resect. The operation, when performed at a proper time, will prevent the dangers of articular suppuration, and enable the patient in the course of three or four months to leave his bed and to move about.

In performing resection of the knee, it has been M. Ollier's aim to place the parts in the best conditions for favouring osseous ankylosis, or obtaining an useful new joint in cases where solid union has not been established. Division of the ligaments and ablation of the capsule, as practised in the operations of Park and Moreau, is attended with the disadvantage of destroying the close relations of the osseous surfaces, and leaves the extremities of the bones quite loose in the wound, and deprived of such supporting soft structure as might assist very much in their ulterior union. By preserving the periosteal-capsular sheath, and maintaining the lateral and posterior continuity of this sheath, the surgeon may retain the ligamento-muscular girdle which surrounds the bones, and would keep them together after the operation. M. Ollier advocates the subperiosteal method of resecting the knee, but points out that this is not done with the view of forming a new joint. A solid limb is needed to support the weight of the body, and osseous union is the best guarantee against any relapse of the local disease. An H-shaped incision is made, which, however, is smaller than that that was formed by Moreau; on each side of the joint, is made an incision for free discharge and for the insertion of drainage-tubes. The outer incision is made just in front of the tendon of the biceps, and the inner one just behind the tendon of the sartorius. In making the transverse incision, the ligamentum patellæ is cut through and the joint opened; the lateral ligaments of the knee are not divided. The superior flap is then raised together with the patella. If this bone be found diseased it is removed, its anterior covering of periosteum, together with the continuation of the tendon of the extensor muscles, being carefully preserved. The crucial ligaments having next been divided, the inferior extremity of the femur is projected through the wound and stripped of its periosteum, and the insertions of the ligaments,

as far as the line to which it is thought necessary to apply the saw. The extremity of this bone having been removed in the usual way, the end of the tibia is dealt with in a like manner. All masses of thickened synovial membrane are scraped away, and the sawn surfaces of the bone brought together and fixed by two wire sutures. After the application of sutures to the edges of the skin flaps, the ends of the divided ligamentum being also brought together by suture, antiseptic dressings are applied, and the whole limb secured in a splint. This proceeding, Ollier asserts, not only seems to realise all the conditions required for total resection, but is applicable in its primary stage to exploratory arthrotomy, to articular scraping, and to superficial (intra-epiphyseal), and partial resections of the knee-joint. Under these circumstances, it is important to preserve the lateral ligaments and to re-establish the continuity of the quadriceps by suturing the ligamentum patellæ. The tendino-ligamentous girdle having been left intact, the elements of resistance and motility are preserved, and the joint is subjected but to the minimum of disturbance. M. Ollier, however, would not at the present day compare these partial operations with total resection of the knee. The former are, in certain cases, rational operations, the dangers of which are much diminished by Lister's dressings and iodoform, but they are attended by the disadvantages of all operations that are too conservative—they expose the patient to the risk of relapse. The patella has always been removed by M. Ollier; and it is considered prudent not to leave this bone in resection of the knee in the adult, when it is deprived of its cartilage and more or less diseased internally. This practice is a guarantee against relapse of osteitis and of fungous disease of synovial membrane. M. Ollier would not, however, adhere strictly to this rule, and thinks that the patella might well be left in cases of traumatic arthritis, particularly in infants. When this is done, it is necessary to increase the number of drainage-tubes. In preserving the patella when sound, in cases of some other lesion of the joint than osseous or synovial tuberculosis, the surgeon might gain the same advantages which he seeks to obtain by preserving the lateral ligaments and the capsule; that is to say, around the line of reunion of the bones there is an addition to the tissues, serving to augment the solidity of the limb. If firm union fail to be established between the bones, the presence of the patella would probably favour the compatibility of articular motility with usefulness of the limb.

In dealing with enlarged granular masses of synovial membrane in resection of the knee, the surgeon's practice should vary according to the nature of the arthritis. In articular disease of traumatic or rheumatic origin, these granular masses are converted into stable cicatricial tissue after the removal of their superficial layer, but in tubercular arthritis it is necessary to remove all the diseased synovial membrane and to apply the actual cautery to the raw surface. In cases where well-marked grey granulations exist, and where large masses are observed of caseous material, or of pale and slightly vascular granulations extending under the periosteum, amputation is preferable to resection. Since the introduction of antiseptic dressings, the prospects of treating severe open injuries of the knee by resection have much improved; and, at the same time, these dressings, by preventing those bad results which resection is intended to remedy, are likely to diminish considerably the number of cases of resec-

tion, and to widen the field of non-operative conservative surgery. There will, however, always remain a certain number of cases of comminuted fracture of the epiphyses which should be treated by resection, as, for example, when the condyles are broken up into numerous fragments and a projectile or some other foreign body is present in the midst of the splinters. In a case of this kind, M. Ollier would perform the following operation, which he has not yet tried on the living subject, but which seems to possess several advantages on account of its simplicity and of its favourable anatomical conditions with regard to ulterior renewal of the joint if ankylosis should fail. This consists in a single straight median incision carried longitudinally over the patella and through the tendon of the quadriceps and the ligamentum patellæ, dividing these latter structures into two equal parts. The patella having been divided by a saw into lateral halves, the two lips of the wound are separated, the interior of the joint is exposed, and the extent and situation of the injury fully revealed. The surgeon is then able to do what is necessary, whether simply to remove splinters or foreign bodies, or to perform resection.

In two of the seven cases of resection of the knee recorded in this memoir, the operation was performed for osseous ankylosis. This condition had been the result in one of these instances of extension of inflammation from the juxta-epiphyseal region; in the second, of acute traumatic arthritis. In dealing with ankylosis of the knee by operation, the surgeon has hitherto had the choice of two methods of procedure: cuneiform excision of the femur above the articulation; resection of the osseous extremities which formerly constituted the joint. The second, M. Ollier states, is that most frequently indicated, and is the only operation applicable in cases where the extremities of the bones are still diseased; where there are patches of osteomyelitis in the condyles of the femur; and where open sinuses still exist and lead down between the bones. The operation of cuneiform excision of the femur may doubtless be often applied, but in cases where it is not necessary to interfere with the old joint, and where there is no diseased tissue to be removed, this cuneiform resection, in Ollier's opinion, should be replaced by a simple supracondyloid osteotomy, or better still by a bloodless operation, that is to say, by femoral osteoclasis. This supracondyloid fracture is with Ollier the 'method of election,' whenever such operation is applicable and especially in ankylosis of traumatic or rheumatic origin. In such cases, he would not hesitate to have recourse to osteoclasis, if the amount of flexion at the freed knee did not pass beyond a right angle. Osteotomy, it is allowed, has no great danger if performed antiseptically, but still it is not so harmless a proceeding as osteoclasis. That method should be chosen, which enables the surgeon to obtain the same orthopædic result without a wound and yet with equal precision.

This memoir concludes with the following summary. 1. Antiseptic dressings have completely changed the indications and prognosis of resection of the knee. As formerly it was accounted wise and prudent to reject this operation, or at least to limit its indications in hospital practice, so now it would be considered unreasonable to continue to amputate the thigh in cases where resection is applicable. 2. In young subjects, on account of the dangers of resection with regard to ulterior lengthening of the bone, it is still necessary to insist on a methodical

expectant treatment in suppuration of the knee, and on the employment of such relatively simple means as arthrotomy, articular scraping, drainage, &c. The surgeon might have recourse in the first place to these means at any age, but he should always prefer resection to amputation, except in dealing with severe forms of tubercular arthritis, for which the latter is the proper operation. 3. The gravity of resection of the knee is not greater at the present day than that of amputation through the thigh. The cases recorded in this memoir show that in resection of the knee success is now the rule where formerly it was the exception, and that the surgeon must be guided by other motives than the gravity of the operation in deciding between amputation and resection. 4. Endeavour should always be made to obtain osseous ankylosis after resection of the knee; but it is necessary in this operation to try to ensure a strong articulation, in case, for some reason or other, ankylosis might fail. 5. The subperiosteal method allows the surgeon to attain this result. The sawn surfaces of the bones are thus left surrounded by abundant ossifiable tissue; and in cases where osseous union does not result, a complete ligamentomuscular girdle is preserved around the new joint. 6. From the scarcity of the observations that have hitherto been recorded, it is yet impossible to estimate the value of resection of the knee in military surgery. It may be presumed, however, that in future campaigns results may be obtained as good as those of modern civil surgery, if only the wounded can be treated with ordinary care. 7. In resection a transverse incision is recommended, together with two lateral vertical incisions. These incisions should not be so extensive as those that were made in Park's operation, and the lateral ligaments of the knee should be left intact. On each side of the joint, far back and near the posterior margins of the condyles, a deep vertical incision is made for the purpose of drainage. 8. In cases of chronic intra-articular suppuration, it is usually found necessary to remove the patella, its anterior covering of periosteum being preserved. The continuity of the ligamentum patellæ should be re-established by nature. 9. In the operative treatment of comminuted fracture of the articular extremities of the bones, a longitudinal incision is to be preferred to transverse incisions. A median longitudinal incision in front of the knee, dividing the patella into two lateral halves, facilitates the operation, and preserves all the constituent elements of a new joint, and at the same time favours ankylosis, if this result be intended. 10. In osseous ankylosis of the knee, supracondyloid osteoclasis should be the method of election. This operation is especially applicable in cases of ankylosis of traumatic or rheumatic origin, when flexion does not reach or exceed a right angle, and when there are not any deep-seated and multiple cicatricial bands in the popliteal spaces. 11. Whenever there is a risk of lacerating any of the popliteal vessels or nerves enclosed in cicatricial tissue, it would be better to have recourse to supracondyloid osteotomy or to resection. It would be necessary in such case always to practise total resection of the condyloid expansions of the femur, if the cicatricial adhesions be deep-seated and multiple, and if the leg be flexed beyond a right angle. 12. Resection of the condyloid expansions is the only operation to be proposed when signs of inflammation of bone are presented. In a case of flexion of the leg passing beyond a right angle, the surgeon must remove not merely a wedge-

shaped bone, but must take away some thickness of the posterior portion of the femur. This is the sole means of bringing the surfaces of section into contact, without exciting painful tension in the popliteal region and interfering with the circulation of the limb.

W. JOHNSON SMITH.

ARTICLE 1296.

RICHARDSON ON FEEDING BY THE VEINS, AND ON INTRAPERITONEAL INJECTION IN THE COLLAPSE OF CHOLERA.

DR. B. W. RICHARDSON, in the *Med. Times and Gazette*, Aug. 1883, pp. 124, 155, 179, 210, recasts in a brief form a number of essays which appeared some years ago in the *Med. Times and Gazette*.

In the main, the author was led to the conclusion that every fatal sign and every danger in cholera is due to the one simple act of the removal of water from the tissues, and especially from the nervous structures. The treatment suggested during collapse, and based on these views, introduced the consideration of the plan of feeding by the veins and of intraperitoneal injection. The first point of practice in the collapse was to place the patient in a temperature between 50° and 60° F. The next point was that of feeding. The fluid should be warmed about 15° above the animal temperature, and should not only supply colloidal food, but should yield up heat to the body after it was taken. A food was prepared according to the following formula :—

Two ounces of pure stearine, 2 oz. of fresh butter, 8 oz. of whites and yolks of eggs, well beaten up; 20 grains of carbonate of soda, 80 grains of common salt, 2 oz. of distilled water. In administering this compound, take an ounce of it, place it in a breakfast cup, and rub it up equally with a teaspoonful of glycerine or honey. Next pour upon the mass 3 ounces of *boiling water*, and incorporate well.

When feeding by the mouth is impossible, the next indication in the stage of collapse is to feed by the veins—to feed in the same way, as nearly as possible, as the venous system is fed in health from the alimentary canal through the thoracic duct.

In the calm which accompanies the approach of death, there is often a cessation of the discharges from the alimentary canal, and in rare cases the patient arrives at this stage and unexpectedly recovers; again, if one inject a warm saline fluid into the veins of a patient during this stage, there is a temporary reanimation, followed, however, by renewal of the discharge from the alimentary canal, and subsequent collapse.

The problem, based on these two sets of facts, is to find a fluid which, being gradually and steadily infused, will keep the animal life alive while time is given for the alimentary affection to run its course and cease—a result which is all but certain in the majority of cases when time is obtained. What shall the fluid be? Blood is the first fluid to which the mind refers, but the objections to it are too many to permit the recommendation of its use as a practical method. Could we, however, separate the serum of the blood flowing from the vein of a healthy person, and slowly infuse the serum only, we should then be giving the collapsed man an external alimentary system, and should be putting him into a condition in which it would be difficult for him to die.

Milk was injected into the veins in six cases by Dr. James Bovell, of Toronto: two cases recovered, and the others were benefited for a short period. The author, however, considers that there are disadvantages connected with the use of milk, and suggests the use of the following:—four ounces of white of egg, one drachm of common salt, one scruple of phosphate of soda, one ounce of clarified animal fat, two ounces of pure glycerine, water to one pint.

In reference to the mode of injecting the veins, it must be remembered that no forcing must be used: the syringe is a bad and dangerous instrument.

Dr. Richardson also draws attention to a suggestion which he submitted, in Aug. 1854, to the East Surrey Medical Society, for the treatment of cholera during collapse by the production of artificial peritoneal or of cellular dropsy; the author thinks, however, that the plan of feeding the veins is the sounder practice.

Having disposed of the treatment of cholera in the stage of collapse, Dr. Richardson concludes his papers with a short communication on the treatment of the first stage, and of the stage of reaction. The treatment of the early stage resolves itself into three parts: *a*, the hygienic; *b*, the dietetic; *c*, the medicinal.

Creasote in small repeated doses, in combination with opium and camphor, checks the choleraic discharge, relieves the spasm, and is the most demonstrably curative remedy the author knows.

When the stage of collapse has decidedly passed away, the safest practice is to prevent every artificial means of stimulation. The patient may be relieved of medicine, he must not be rapidly fed, and must be allowed to rest and sleep.

RICHARD NEALE, M.D.

ARTICLE 1297.

KOCHER AND OTHERS ON THE REMOVAL OF GOITRE.

At the twelfth congress of the German Surgical Society in Berlin, on April 4, 1883 (*Deutsche Med. Wochens.*, April 11 and 18, 1883), Professor Kocher, of Bern, spoke on the operation for the removal of goitre. Since 1877, this operation has been performed 340 times, 103 times by Kocher alone. He has had to guard against two dangers in the operation, the risk of wounding the recurrent laryngeal nerve, and the difficulty of preventing or arresting hæmorrhage. He ligatures all the veins in two places, after laying bare the swelling, then turns the tumour out of the wound, and loosens it from the trachea and surrounding parts; and only after he has ligatured the arteries does he proceed to incise the capsule and remove the tumour. He considers the customary tracheotomy before the operation to be not only unnecessary, but positively injurious, according to the statistics; and he has found that the bending of the trachea which was supposed to necessitate it, can be prevented by a suitable position of the head of the patient. He has never observed the softening of the trachea as the result of pressure, which has been mentioned by many operators. As the consequence of the operation, he has seen great diminution of physical strength, especially in young growing patients, with

deficiency of red blood-corpuscles, and other signs of pernicious anaemia, in cases where the extirpation has been complete. Other organs remain normal, as does also the urine; and Dr. Kocher believes this condition, which he calls *cachexia strumiviva*, to be the result of the loss of the thyroid gland, which must, in that case, be reckoned among the blood-forming glands. He has not been able to refer the cause of goitre to the drinking water.

Professor Bardeleben had not seen so many cases as Professor Kocher, as the occurrence of four during the last session was an increase which, he thought, might be due to the greater use of water brought by pipes. He agreed in giving up the preliminary tracheotomy, but he had not found any cachectic symptoms to follow the cases of total extirpation which he had had; the patients' strength seemed, on the contrary, to increase from the time of the operation. He had seen one case of great softening of the trachea.

Herr Maas of Freiburg had also operated without preliminary tracheotomy, but in one case it was necessary to resort to it afterwards, on account of the bending of the trachea, which threatened asphyxia. He had found the trachea to be usually increased in length and diminished in width, so that its lumen was easily closed in unfavourable positions of the patient. He thought the operation was sometimes undertaken too hastily, as, out of 455 patients seen in his polyclinic and 67 in the clinic, only 23 required operation, the others being cured by iodine treatment. He considered the operation to be more necessary in proportion to the age of the patients.

Herr Wölfler, of Vienna, spoke of the results of 68 cases, of which five had ended fatally. Forty-eight of these were between the ages of 12 and 30, and the remaining 20 between 30 and 65. The only indication for treatment, in his opinion, ought to be disturbance of function, which will be principally dyspnoea. The operation is too dangerous to be undertaken for the sake of appearance, and the resulting sinking in of the skin is often more unsightly than the original malady. Pregnancy, up to the sixth month, is no contra-indication of the operation; after that period, dyspnoea should be treated temporarily by tracheotomy, and further treatment deferred. The most common form of tumour is adenoma, on which may follow colloid degeneration. In the former, the blood-vessels form a network in the swelling; in the latter, they run more longitudinally. Papillary cystic adenoma is more malignant, and gives indications for thorough extirpation; but the hæmorrhagic goitres are the most dangerous, and they may give rise to most alarming bleeding. Dr. Wölfler had had no experience of the cachexia mentioned by Dr. Kocher, and he thought the general health of the patients ought to be thoroughly investigated beforehand, so that a circumstance which would have occurred in any case may not be attributed to the operation. Death resulted generally from septic infection of some kind, and in one case from entrance of air into the inferior thyroid vein.

Dr. Kocher replied that none of the speakers who contradicted the occurrence of cachexia had operated on young persons, in whom he had found it to occur. In the only case of a patient as young as 15 which had been mentioned, a relapse had occurred, showing that the extirpation had not been complete.

Alice Ker, M.D.

ARTICLE 1298.

PYLE ON THE UTERO-PLACENTAL CIRCULATION.

DR. J. P. PYLE presented as a graduating thesis, at the last annual commencement of the University of Pennsylvania, a memoir entitled 'Experimental Research on the Utero-placental Circulation.' The conclusions which the author deduces are formulated as follows.

Nineteen experiments were made with ultramarine blue. In each instance the blue, which had been introduced into the circulation, was found widely distributed in the maternal organs. The total number of foetuses obtained from these animals was sixty-one. Of these, forty-six gave positive results, *i.e.* the foetal tissues were impregnated with blue granules in varying quantity. Only fifteen of these foetuses gave negative results.

Of the placenta fifteen were examined, thirteen of these showing blue granules, the remaining two giving negative results.

Of the thirteen umbilical cords examined, eight gave positive and five negative evidence. Dr. Pyle regrets that, owing to circumstances beyond his control, the remainder of the cords and placenta were not examined.

It is also seen that ten experiments were made with septic poisonings with the object to study the transition of bacteria from the mother to the foetus. The maternal tissues were in every case impregnated with bacteria. Of the thirty-nine foetuses examined, in every one identical bacteria were discovered. Eight of the placenta gave positive results, as well as seven of the umbilical cords examined.

The control experiments, two in number, made with the object to determine whether or not the bacteria were of an accidental occurrence, gave negative evidence. It is true that putrefactive bacteria do occur in animals after the lapse of a certain time after death, and this Dr. Pyle observed in the blood from the heart of the animal which was examined eighteen hours after death. But even here the foetuses were free of them. Moreover, it can be seen from his experiments that the examinations were made immediately after death, or within a few hours, and that only bacteria pertaining to septicæmia (micrococci) were seen, and not the organisms of putrefaction, which are dumb-bell-shaped and rod-like. The few negative results are certainly of no significance in contrast with the many positive observations, especially in view of the difficulty in making the examinations.

The observation in the human being, which he had the exceptional opportunity to make, he regards of still greater importance than all the experiments combined. Dr. Pyle has observed that the bacterian disease of the mother is transmitted to the foetus. The examination of the foetus, which was removed by Cæsarean section, was made one hour after the death of the mother. In this case, also, the bacteria in the blood and tissues of the foetus could surely not be accidental.

Dr. Pyle thinks that Cohnheim's theory of the migration of white blood-corpuscles, which has lately been proven by himself to be a mere passive process of filtration through the blood-vessel walls, is a fair analogy to what may be found in the transmission of solid particles through the attenuated utero-placental walls.

ARTICLE 1299.

PRIBRAM ON DYSENTERY.

A CASE of acute dysentery, occurring in a patient who had already been for a long time under observation for some other affection, is reported (*Wien. Allgem. Med. Zeitung*, No. 29, 1883) from Prague. The cause of the acute attack could only be found in the presence of a patient suffering from chronic dysentery in a neighbouring bed. Every precaution, however, had been taken to prevent the possibility of infection from the excreta, &c. The clinical features of the case were precisely those of the most acute form of dysentery. The examination of the rectum showed great and tender swelling of the mucous membrane, without breach of surface. No similar attack had ever been experienced by the patient. In his remarks upon the case, Professor Pribram points out the resemblance of these acute forms of dysentery to those of cholera, especially in the very rapid onset of the disease and the speedy occurrence of collapse or suppression of urine. The less severe forms may in their results be almost as fatal, from the continuance of fever, depression of circulation, and tendency to suppression of urine. The truly chronic forms, which are the most frequently met with, are characterised by their marked tendency to relapse, coupled with a condition of alternate constipation and diarrhoea. Digital examination of the rectum in such cases frequently shows cicatricial constriction, and the presence of single isolated polypoid excrescences from the mucous membrane. In some cases, but they occur but seldom in Prague, periproctitis and rectal abscesses may be set up. In others, still more rarely, hepatic abscess may follow. In respect of the acute attacks, much of the success or failure of treatment depends upon the previous vigour of the patient. As a general rule, the more vigorous the patient, the better are his chances of overcoming the depressing effects of acute or subacute dysentery. In the early stages, experience has taught that judicious purgation, especially by castor-oil, has been followed by the best results. Occasionally, even the most violent attacks appear to be cut short at their very first onset by this means. With continuance of the diarrhoea, some form of opiate must be used, and Professor Pribram speaks strongly in favour of opium itself in preference to any of the preparations of morphia. Possibly the better action of opium may be due to some of the other alkaloids, which occur in natural combination with it.

A special remedy has been found in cotoin (an astrigent alkaloid derived from Bolivian bark.—*Aeph.*) but as yet it has not been very widely employed. Local medication by injection, especially of antiseptic fluids, would appear to be indicated by the very marked local symptoms. Of antiseptic solutions, that of carbolic acid must be avoided, owing to the rapidity with which absorption may take place in the rectum. Solutions of boric acid or nitrate of silver are more appropriate, but, if there be still active mischief present, they often give rise to excessive pain. The maintenance of strength is one of the principal considerations in the treatment of dysentery. Wine, rum, and ether are recommended. The choice of nourishment is of the utmost importance. Skimmed milk, small quantities of broth, and cold solutions of white of egg, are applicable to the very acute stage. Digestible farinaceous foods and preparations of eggs may follow when

bleeding has ceased. No meat should be given, until the natural action of the bowels has been nearly restored. E. CLIFFORD BEALE, M.B.

ARTICLE 1300.

CREIGHTON ON THE AUTONOMOUS LIFE OF THE SPECIFIC INFECTIONS.

THE theory of evolution has given a new direction to research in many different fields, and has been largely fruitful in fresh discoveries. The marks of its working, too, are as plainly visible in the changes of our daily life, as are its vestiges in the earth-strata of past ages. It would be strange if the history of disease did not show signs of the same developmental process; and we believe that, as time goes on, these will be more and more evident, though even recent times, extending not much further back than the beginning of the present century, have seen modifications of intensity and distribution of disorders which point either to their increasing prevalence or their approaching extinction. Small-pox and typhus fever belong to the latter, osteitis deformans to the former class.

Dr. Creighton's address on pathology at the late meeting of the British Medical Association at Liverpool is interesting as bearing on this subject, while it is no less so from its novel and eloquent presentation of known facts. The address was more properly a philosophical than a scientific one. It did not advance proofs so much as analogies, probabilities, and suggestions. But its very suggestiveness made it valuable by inviting the mind to trace, farther than has yet been done, the life-history of diseases, and, so to speak, to find the causes of the causes now believed to produce them. Beginning with cancer, in which the principle of development from the simple to the malignant has long been at least provisionally admitted to exist, the lecturer went on to consider the markedly infective diseases, such as bovine tubercle and yellow fever. He laid down the general doctrine that in all these cases there is a primary condition of body, consisting of a mere structural and physiological alteration of the normal type localised at some point or points in it, not metastatic by infection in the body, and not communicable to a healthy individual. This is the pre-autonomous stage. It is followed, in certain cases, by a stage in which the morbid alteration becomes transferable and capable of reproducing its like by contagion. This is the stage of autonomy.

Cancer, while still an innocent adenoma, a more or less local proliferation or secretion of epithelial cells into the tubules of a gland, is pre-autonomous. So soon as the shed products tend to invade the surrounding fibrous tissue of the gland, and, travelling by the lymphatics to distant parts of the body, to impress their proper characters on them, it becomes autonomous. Normal secretion is followed by a secretion of malignant material.

In bovine tubercle, the nutritive function is taken to undergo perversion. The primary seats of disease are the parts normally occupied by internal fat, namely, the subserous tissues lining the serous cavities. The nodules of new growth exactly mimic the nodular masses of fat, which they may be said to have dispossessed, and whose place they occupy. We are told that the first step in this process of dispossession is a failure of nutrition, which leads to absorption of fat, and the formation in place of it of an

embryonic tissue, which is an attempt at reproduction of fat, but is arrested from insufficient blood-supply. So far, the disease is not autonomous, but soon the embryonic material finds its way along the lymphatics, other organs are implicated, and the autonomy is established. Small-pox, which has been traced by Hirsch, Pruner, and others to an original seat in the African continent, is by the new hypothesis regarded as primarily a skin-disease, non-contagious, and limited to the black skin. It acquires its autonomy after dirt, neglect, and exposure to the circumstances of tropical savage life have rendered it inveterate. Some change in its vital properties has occurred, which enables it to reproduce itself in another than its first host. Yellow fever has been selected by Dr. Creighton as another example of a transitional disease. With elaborate research, he has traced its advent to the American coast and the West Indies as closely connected with the African slave trade. The ships by means of which this traffic was carried on were badly adapted for it, and at the end of the voyage were rank with human filth. Not uncommonly, there had been great mortality among the negro cargo from dysentery. Following Dr. Audouard, who investigated two outbreaks of yellow fever on behalf of the French Government, Dr. Creighton ascribes the disease contracted at the ports of debarkation, where it regularly became endemic, to fetid emanations from the filthy bilge-water, and believes that there is something peculiarly offensive about the negro body which causes or assists in causing the noxious effects of such emanations to acquire a greater virulence on the body of the white man, and to produce, not dysentery, but yellow fever. This dysentery, we presume, is the visible expression of the pre-autonomous condition of yellow fever. It is as with certain parasites—the negro is the first host of a something which acquires different and stronger characters on being transferred to the European. Such, at least, would seem to be the view of the natural history school of pathologists. The fact that the negroes themselves have always shown a singular immunity from yellow fever goes to support the same theory. It naturally occurs to us that, after all, the dysenteric disorders may have been a variety of yellow fever. But we are positively informed on the authority of Bancroft and others that this was not so. If their evidence can be relied on, we are clearly bound to admit the possibility of evolution in this disease.

It is worthy of note that the Peruvian outbreak in 1853 arose on the importation, not of negroes, but of Chinese coolies, into Lima and Callao. These men had suffered like the negroes from dysenteric sickness. They were ill-fed, weakly, neglected. Thus dysentery and filth are again accountable, but equally in the case of the yellow and the black man. Yellow fever, then, is not of negro origin only.

Purulent ophthalmia, excited by the glare of the Egyptian sun, is cited as another disease beginning as a simple inflammation, but ultimately, in chronic cases, acquiring contagious properties.

It seems somewhat strange that, throughout this lecture, disease-germs are but barely mentioned. One might have expected that, after the life-history of various micrococci and bacteria has been carefully and repeatedly described, and their function of conveying contagion demonstrated with mathematical precision, some allusion would have been made to their share in the processes which mark the autonomous stage of infectious diseases. The part

played by these organisms is not, however, denied, for we have it stated: 'The germ or the sperm is no doubt a peculiarly important part, and it is charged with the most marvellous representative powers; but it is always representative of the individual, and it derives its powers from the individual.' This somewhat hazy statement may be taken as expressing, though in a meagre way, the present position of bacterial pathology. We do not think it is directly intended to do so, but to our mind it indicates a method of reconciliation between the endogenous and exogenous theories of the etiology of infectious diseases. The experiments of Pasteur on anthrax, of Koch on tuberculosis, and many others of the same kind, have certainly demonstrated the power which bacteria possess of communicating disease. But, inasmuch as the organisms were taken in the first place from the bodies of diseased animals, or were contained in earth or fluids which were not free from the suspicion of having been infected from those bodies, there is still some doubt whether they were themselves the first causes of the disease, or were the vehicles of its transmission merely after having become endowed with the characters of the morbid structure which formed their pabulum. The point in this address, which we consider to be of especial value, is the suggestion, and even as such it is valuable, that there has been in certain contagious diseases an early condition which has gradually emerged from the normal, which, though morbid, was at first non-communicable, but afterwards, by concentration of morbid products or otherwise, became communicable, and was, and continues to be, communicated by inoculation of morbid juices, it may be, or, as has been shown, by bacteria, from the diseased part.

B. G. MORISON, M.B.

ARTICLE 1301.

LUCAS ON SURGICAL DISEASES OF THE KIDNEY.

AT the annual meeting of the British Medical Association in August (*Brit. Med. Jour.*, September 29, p. 621), Mr. Clement Lucas opened a discussion on 'The Surgical Diseases of the Kidney, and the Operations for their Relief,' of which the following is a summary. He commenced by stating that the greatest advances in the treatment which had taken place of late years were those made in the indefinite border-land which separates medicine from surgery. It was in this barren and desolate tract that we must look for fresh discoveries. Ovariectomy and the various operations upon the intestines and stomach he put forward as instances of work recently advanced in this territory; but he claimed, as the most remarkable incident of this decade, the sudden light which fell upon the profession in its relation to renal disease and the rapid growth and recognition of renal surgery. The credit of having awakened a new interest in renal disease, and of having, by experiment on the lower animals, made sure of his ground, was due to the late Professor Simon of Heidelberg, who in 1869 successfully performed nephrectomy for the cure of a fistula of the ureter following ovariectomy. Since then, extirpation of the kidney has been performed upwards of a hundred times. The operation of nephrotomy has been much more frequently undertaken, and the removal of a stone from the kidney, which used only to be attempted when a sinus or tumour existed, has been

several times successfully performed before the kidney had suffered any severe damage.

In casting a glance over diseases of the kidney to determine which might admit of surgical treatment, it is necessary to exclude at once all such diseases as attack equally the two organs; hence, the various degenerations, included under the name of Bright's disease and lardaceous disease, must ever remain outside the province of renal surgery. On the other hand, conditions which disturb the functions of one organ only, for the most part admit of relief by operation.

Painful moving or floating kidney, being only a mechanical disturbance, admits of relief only by mechanical means. Simple exploration and replacement through an incision in the loin would probably be found sufficient in the majority of cases for the cure of this condition, the adhesion resulting serving to retain the organ in position. Stitching of the capsule to the parietes, or, as it is termed, nephrography, is a somewhat serious, but still simple, undertaking. In eight cases in which it has been performed, the patients all recovered and were relieved. There may still be cases where intense suffering was experienced, and where the other means had failed, which would suggest nephrectomy. Martin of Berlin in six cases removed floating kidneys through the peritonium, and four of these recovered.

Hydronephrosis, a dilatation of the pelvis and calices of the kidney with watery fluid as a result of obstruction below, admits surgical treatment when one-sided. After detailing the various conditions of the ureter, congenital and acquired, which may give rise to this condition, the author suggests these cases should be first aspirated, then cut down upon and drained through the loin, the cyst-wall being stitched to the parietes. Finally, should the fistula fail to close, the remains of the kidney may be returned through the loin. In women, these tumours have often been mistaken for ovarian tumours, and have been operated upon as such. As they are movable and do not form adhesions till late, some may advocate ventral nephrectomy in these cases before drainage, but such treatment would entail more risk than the method advocated. Abdominal nephrectomy for hydronephrosis will, however, show better results than nephrectomy generally.

Large isolated cysts of the kidney having no communication with the pelvis are rare. They should be aspirated and afterwards drained through the loin.

Hydatids of the kidney, also rare, have a tendency to discharge themselves through the pelvis. When forming tumours, they may be generally cured by aspiration or siphon-tapping.

Pyonephrosis, which resembles hydronephrosis anatomically, but contains pus instead of urine or watery fluid, when unilateral, falls under renal surgery. The double pyelitis, with suppuration and distension, which commonly results from stricture and enlarged prostate, is, the author said, inappropriately named 'surgical kidney.' He suggested the term *reflux pyelitis* as better expressing this condition. Reflux pyelitis, when one-sided, is due to some obstruction in the ureter, and then often gives rise to a large pyonephrosis. Other causes of unilateral pyonephrosis are calculus and strumous pyelitis. After speaking of the diagnosis, and stating that these tumours are more adherent, and give rise to more pain and constitutional disturbance than hydronephrosis, he said that nephrectomy for pyonephrosis

had been performed twenty-eight times, and of these seventeen recovered and eleven died; but it is most worthy of notice that among these twenty-eight cases six had previously discharged their contents through a fistula in the loin, and all these recovered. Hence, he argued, it is better to drain a pyonephrosis before performing nephrectomy.

Necrophosis of the kidney can only be treated by nephrectomy; and if this be performed early, there may be a good chance of permanent benefit. Generally they are too large to be removed except through the peritonium; but of five cases removed through the loin, four recovered. Out of sixteen removed by ventral incision, ten died, and six recovered.

Calculus of the kidney offers an excellent field for surgical interference, but the difficulty is to make sure of the diagnosis. Many cases of supposed calculus would turn out to be strumous kidneys. Two cases were related in which the kidney was explored, and even deeply punctured, but no ill-result or rise of temperature followed, and the wounds healed primarily. Several cases of nephro-lithotomy are recorded in the Clinical Society's *Transactions* and two cases have been performed successfully at Guy's Hospital during the present year. When the kidney is much dilated and damaged, it is a question whether it would not be better to remove it.

After briefly alluding to *Injuries to the kidney*, which, though not included under the title of the paper, might suggest nephrectomy, the author proceeded to speak of some details in operating. He recommended for the lumbar operation a combination of two incisions which he had employed as giving the most room, viz., an oblique incision higher than the colotomy incision within about half an inch of the last rib and parallel with it, and a vertical incision on the outer margin of the quadratus lumborum, extending from the upper edge of the last rib to the iliac crest. For the transperitoneal operation, Langenbuch's incision external to the rectus muscle is to be preferred to the median incision, as it enables the operator better to reach the kidney through the outer layer of meso-colon.

In conclusion, he urged, that antiseptic exploration of the kidney through the loin is a simple and not at all a dangerous operation, which may be undertaken without anxiety in any case where calculus is suspected; that it is generally wiser to tap and drain fluid tumours of the kidney before proceeding to remove the diseased organ; that, when nephrectomy is decided upon, the extraperitoneal operation through the loin should always be chosen for any tumour which it is possible to withdraw through the limited space at disposal; finally, if this course be adopted, the transperitoneal operation will be reserved for large solid tumours, and, perhaps, some floating kidneys. ALBAN DORAN.

ARTICLE 1302.

SHOEMAKER ON THE REPAIR OF FRACTURED BONE.

DR. G. E. SHOEMAKER, in a thesis presented for graduation at the University of Pennsylvania, describes the experimental researches which he made in order to determine to what extent the structure of the callus is identical with that of normal bone.

Dr. Shoemaker starts from the following premises. 'The repair of most animal tissues after a

break in their continuity takes place by means of a material unlike the wounded tissue.' 'If then the callus become true bone, it is an exception to the general rule.' He further observes that in the union of nerves a process, which results in a rebuilding of true nerve-tissue, is said to take place; but the process is unequal to the repair of any considerable loss of nerve-substance, and the breach is permanently filled by cicatricial substance.

Dr. Shoemaker examined the structure of the callus in several fractures in man, and arrived at the conclusion that the only difference between the structure of the callus and that of 'true bone' is that in the former the lacunae are more abundant. So far we agree with Dr. Shoemaker: we must, however, remind him that in fractures of long standing this difference disappears, but another point of difference is present and remains permanent. MM. Rigal and Vignal,* in their work on callus, demonstrate these facts with great clearness.

The old authors, among whom we will only quote Duhamel and Troja, observed, without being able to furnish the explanation, that if an old bone containing a callus, even of long standing, be left to macerate for a long time, the callus becomes separated from the bone. Thus there are three fragments, the callus, and the two pieces of bone, which were united by means of the callus. MM. Rigal and Vignal have demonstrated that this separation is due to the absence of the fibres of Sharpey, which are present only in bone-tissue which proceeds from periosteum, and never in bone which is developed from cartilage or from medullary cells. These authors have observed that in simple fractures the callus proceeds from cartilage which owes its formation to subperiosteal cells; in compound fractures followed by suppuration, the callus is developed from medullary cells.

The experimental researches of Dr. Shoemaker on the formation of the callus lead him to conclude that it is derived from the blood, connective tissue, medulla, and periosteum, from which cartilage is first evolved and finally transformed into osseous tissue, the process resembling that of the formation of bone.

We here venture to ask Dr. Shoemaker why he did not take the precaution to read the literature on the subject of his study; he would then probably have hesitated to make researches which carry him over ground which has been well trodden by men of world-wide reputation. His thesis which chronicles his research does not contain any new fact. In it he repeats what Ranvier (1866) and Ollier (1877) published in their works on callus. Had his knowledge been extended by consulting authors who have written on the subject, he might, perhaps, have perceived that it was more advisable to repeat and control the experiments of MM. Rigal and Vignal, and thus throw more light on questions they have left obscure, as these authors have done for MM. Ranvier's and Ollier's researches.

Dr. Shoemaker passes by in silence the difference between the formation of the callus in simple and in compound fractures.

If the shortcomings in this thesis be forgotten, Dr. Shoemaker may be heartily complimented on having chosen a subject which involved giving a great deal of time, and on not sparing trouble to demonstrate important phenomena in pathological anatomy.

ARTICLE 1303.

POTT ON THE INFLUENCE OF CERTAIN ANTISEPTICS ON VACCINE LYMPH.

DR. RICHARD POTT, who is demonstrator of children's diseases at Halle, gives a valuable contribution to our knowledge of this subject (*Archiv für Kinderheilkunde*, Band iv., Heft 11). The antiseptics used were carbolic acid, salicylic acid, borax, and thymol; and the solutions were in all cases mixed with the lymph in equal proportions, and either employed directly or sealed in tubes, and reserved for subsequent experiment. The vaccination was always primary and the lymph always humanised. In nearly all cases, each arm was vaccinated in five places. Fresh carbolised lymph (*i.e.* that under four weeks old) gave the following results. Mixed with a 1 per cent. solution of carbolic acid, it was successful seven times out of eight; with 2 per cent. solution, only once tried, and successfully; 3 per cent. tried sixteen times, successfully in all; with 4 per cent., successful eleven times out of nineteen; 5 per cent., tried six times, and always failed. The admixture of the last solution produced a cloudiness in the lymph, owing, perhaps, to coagulation of the albumen. By longer contact with the antiseptic, the lymph appeared to lose its power. Experiments with carbolised lymph, from six to twelve months old, gave the following results. A 1 per cent. solution was successful only five times out of eleven. Two per cent., 3 per cent., and 4 per cent. solutions were tried respectively four times, twice, and once without a single successful result. The course of the vaccinia which was produced by fresh carbolised lymph was carefully watched, and was found to differ in no respect from that of ordinary vaccinia.

Salicylic acid was used in one-third per cent. solution; and, when fresh, the lymph was successful in fifteen out of seventeen cases; but when from six to twelve months old it was useless. Borax in $\frac{3}{4}$ per cent. solution was employed fresh in thirteen cases, all of which were successful; and the stale mixture was effectual in seven out of eleven cases. The author considers therefore that a solution of borax is the best means of diluting lymph when the quantity is limited. One child, however, vaccinated with this admixture, developed on the ninth day a roseola extending all over the body and limbs, and accompanied by slight fever. At the end of three days, it had disappeared.

Thymol (strength not given) was mixed with lymph and used fresh in thirty-eight cases, of which all but two were successful. The author followed up the cases, and from daily observations convinced himself that the vaccinia thus produced followed its typical course. For further researches with this antiseptic, he refers to the experiments of Stern.

In conclusion, the author says that aseptic lymph of proper strength and freshness has the advantage of being more fluid and of going twice as far as ordinary lymph. The attempt to find a preservative medium has failed.

RALPH W. LEFTWICH, M.D.

FECONDITY.—The *Boston Medical and Surgical Journal* of Aug. 23 states that the wife of a labouring man, named Johnson, in New Jersey, has given birth within eight years to three sets of triplets. All the nine children are alive and healthy.

* Rigal et Vignal: Recherches Exp. sur la Formation du Cal. (*Archives de Physiologie*, Paris, 1881.)

SURGERY.

RECENT PAPERS.

1304. COUPLAND.—Intestinal Obstruction caused by Two Bands: One only being Discovered and Divided. (*Med. Times and Gazette*, May, p. 556.)
1305. LITTLE.—Treatment of Nervus Maternus. (*Med. Times and Gazette*, June, p. 651.)
1306. BUTLIN.—The Diagnosis between Malignant Tumour and Certain Tuberculous Affections of the Testis. (*Med. Times and Gazette*, June, p. 608.)
1307. SAVORY.—Two uncommon Cases of Abscess of Bone. (*Lancet*, May, p. 812.)
1308. LLOYD.—A Method of Controlling Hæmorrhage in Amputation at, or Excision of, the Hip-Joint. (*Lancet*, May, p. 807.)
1309. MAPOTHER.—Hæmorrhagic Ulcer of Head. (*Lancet*, May, p. 932.)
1310. WALSHAM.—Removal of a deep Sebaceous Cyst of the Neck through the Mouth. (*Lancet*, May, p. 767.)
1311. HERSCHELL.—The Urethroscope. (*Lancet*, June, p. 943.)
1312. HOLMES.—Suture of the Musculo-Spiral Nerve Five Months after its Complete Division. (*Lancet*, June, p. 1034.)
1313. CLAY.—The Ligature-Tightener. (*Lancet*, June, p. 997.)
1314. SAVORY.—The Value of Physiology in the Practice of Surgery. (*Lancet*, June, p. 991.)
1315. LUCAS.—A Form of late Rickets Associated with Albuminuria. (*Lancet*, June, p. 993.)
1316. WATSON.—The Propriety of the Inversion of Patients in Chloroform-Syncope. (*Lancet*, March, p. 401.)
1317. KUKTIS.—Foreign Body in the Urethra. (*Brit. Med. Jour.*, May, p. 956.)
1318. SMITH.—Successful Case of Gastrostomy for Intestinal Obstruction. (*Brit. Med. Jour.*, May, p. 999.)
1319. WARD.—Cases of Fracture of the Patella Treated by Suture. (*Brit. Med. Jour.*, June, p. 1118.)
1320. HAMILTON.—Rupture of the Bladder. (*Brit. Med. Jour.*, June, p. 1166.)
1321. HOLMES.—Primary or Immediate Ligature of the Femoral Artery in Popliteal Aneurism. (*Brit. Med. Jour.*, June, p. 1106.)
1322. CARVER.—Acute Necrosis of the Orbit. (*Brit. Med. Jour.*, June, p. 1182.)
1323. MARSH.—Operations on Phthisical Patients. (*Brit. Med. Jour.*, June, p. 1121.)
1324. MYRTLE.—Some Common Affections of the Anus Often Neglected. (*Brit. Med. Jour.*, June, p. 1061.)
1325. TAYLOR.—The Treatment of Spermatorrhœa. (*Brit. Med. Jour.*, March, p. 562.)
1326. WAGNER.—The Treatment of Fracture of the Larynx. (*Centralbl. für Chir.*, No. 23.)
1327. KUMMELL.—Deligation of the Common Iliac Artery. (*Centralbl. für Chir.*, No. 23.)
1328. NEPVEU.—Resection of the Wrist for Disease. (*Revue de Chirurg.*, May.)
1329. PRINCE.—The Bead Suture. (*Annals of Anat. and Surg.*, March 1883.)
1330. FENWICK, G. E.—Excision of the Knee-Joint.
1331. STOKES.—Nerve-Stretching in Tabes Dorsalis. (*Dublin Jour. of Med. Science*, June 1883.)
1332. ROBSON.—Separation of the Lower Epiphysis of the Femur. (*Liverpool Med. Chirur. Jour.*, July 1883.)
1333. LIDELL.—Contusion of the Spinal Cord. (*American Jour. of Med. Sciences*, July 1883.)
1334. PINNER.—A Case of Fat-Embolism. (*Berlin. Klin. Wochensh.*, No. 13, 1883.)
1335. LANGE.—Extirpation of the Rectum for Cancer. (*Annals of Anat. and Surg.*, July 1883.)
1336. GARCIA.—The Reduction of Paraphimosis. (*Gaceta de los Hospitales*.)
1337. FISHER.—Partial Resection of the Bladder. (*Giornale Siciliano*.)

1338. MINICH.—Iodoform in Surgical Dressings. (*Atti della Reale Instit. Venete*, vol. i.)

1339. SUTTON, R. S.—Ovariectomy with Enterotomy. (*American Med. News*.)

1340. JUDSON.—Traction in Hip-joint Disease. (*New York Med. Record*, May 12.)

1341. SARRA.—Coffee in Strangulated Hernia. (*Lyon Mèd.*, May 20.)

ART. 1304. *Coupland on a Case of Intestinal Obstruction caused by Two Bands, one only being Discovered and Divided.*—Dr. Sidney Coupland, in the *Med. Times and Gaz.*, May 1883, p. 556, notes an interesting case of intestinal obstruction in a man aged 65. On March 12, 1883, the patient was suddenly seized with a violent pain in the abdomen, the bowels became obstinately confined, and vomiting set in, becoming stercoraceous in about three days. Cough was frequently excited by the act of vomiting. On the seventh day after the onset he was admitted into Middlesex Hospital, and it was decided that no time should be lost in performing an operation. From the history of the case, it was surmised that the obstruction was probably in the small intestine, and Mr. Lawson performed the following operation. An incision was made in the abdomen in the middle line for three or four inches downwards from the umbilicus. The peritoneum was unusually thick. The gut was carefully examined, and a point was reached where a firm constricting band passed over the bowel to the mesentery. The band was divided, and, no other being detected, the wound was closed and dressed antiseptically. After the operation there was no passage of flatus or feces, no sickness nor nausea, but the patient died in about thirty-two hours. On *post mortem* examination, a second band was found constricting the bowel and mesentery; it formed a long loop, and proved to be the prolonged right lower extremity of the great omentum, which had become adherent to the parietal peritoneum on the left side. Dr. Coupland remarks that the symptoms coming on so acutely, pointed to volvulus or internal strangulation, and the previous history of the case did not show any signs of a long-standing condition which must have been a source of peril for the greater part of the patient's life; but he adds that it is an important lesson to remember that acute symptoms do not exclude the presence of a long-standing lesion. Another point of interest was found at the *post mortem* examination; it was noted that vomiting always excited cough, and in the lower portions of the left lung foci of broncho-pneumonia were found, due, no doubt, to the inhalation of vomited matters.

1305. *Little on Treatment of Nervus Maternus.*—Dr. Little, in the *Med. Times and Gazette*, June 1883, p. 651, describes a method of treating nævi. He says that he has never failed to cure the cutaneous variety by the introduction of heated needles into the base of the tumour. The instrument used is a shoemaker's awl, slightly curved at the point and flattened. The awl, when red-hot, is thrust into the base of the tumour and towards the centre. This procedure is repeated until the entire circuit of the base of the tumour is completed. The awl is plunged in at the juncture of the skin with the tumour, and in this way the vessels are destroyed at the base. The circuit being completed, a few punctures are made into the most prominent part of the growth. No special dressing is required; cold water compresses are sufficient. [The value of this mode of

treatment is well represented by Sect. 737 : 1, *Medical Digest.—Rep.*

1306. *Butlin on the Diagnosis between Malignant Tumour and certain Tuberculous Affections of the Testis.*—Mr. Butlin, in the *Med. Times and Gaz.*, June 1883, p. 608, records two cases where tuberculosis of the testicles was mistaken for cancer. In both cases there was a rapid enlargement of the body of the testis, perfectly smooth, oval, and firm, without any sign of inflammation; characters which pointed to the presence of a malignant tumour rather than to a tuberculous testicle. Mr. Butlin, however, points out that the absence of elasticity is a great point in favour of the tumour being non-malignant. Another feature worthy of notice is, that in both cases the tumour was punctured, and yielded bright blood, which very quickly ceased to flow, and the hæmorrhage was not subsequently renewed. In conclusion, the author remarks that the diagnosis in a difficult case will often rest chiefly on the importance attached to one or two symptoms, among which sufficient weight has not been given to the unequal consistence, and especially to the elasticity of the tumour.

1307. *Savory on Two Uncommon Cases of Fistulous Abscess of Bone.*—Mr. Savory, in the *Lancet*, May 1883, p. 812, reports two unusual cases of abscess of bone. The first occurred in a man aged 30, who had been struck by a cricket-ball when 14 years old; after this the bone began to swell, but for some years he had little pain, until seven years after the accident, when all the symptoms became aggravated, and it was decided to trephine the tibia. An abscess three inches in length was exposed. The wound gradually healed, and for five years the patient had no trouble; but, when about 26 years old, he noticed that pus escaped from the old wound and the old pains returned. He would have periods free from suffering; then for some days he was troubled with severe pain in the part, until a small abscess formed in the old scar; this would suddenly discharge, and the pain would cease. After some weeks the pain returned, leading up to an abscess as before. Mr. Savory being consulted, decided to reflect the old scar, and on doing this noticed a small indentation in the centre of the prominent part of the tibia, through which a minute aperture was discovered, which led down to a cavity in the bone; this cavity was opened up and two drachms of pus removed, thus explaining the peculiar symptoms to which the patient had been subjected for so many years. The second case was that of a delicate girl, aged 18, who had been in good health until seven years previously, when she struck her right shin; this was followed by inflammation of the knee-joint and mischief in the upper part of the tibia. Abscesses followed, and several pieces of dead bone were removed from the shaft. The wound healed and remained sound until a fortnight before admission, when pains recurred in the site of the old injury, increasing until pus was discharged. The same condition as existed in the previous case was found on dissecting back the old scar; a small orifice in the bone was detected, which led down to a cavity filled with pus. In these cases the great agony experienced by most cases of abscess in bone was absent; and the reason is clear enough, the tension being removed by the pus discharging through the small opening in the bone; but the presence of these minute fistulous openings in the bone-substance is rarely met with.

1308. *Lloyd on a Method of Controlling Hæmorrhage in Amputation at, or Excision of, the Hip-joint.*—Mr. Jordan Lloyd, in the *Lancet* of May 1883, p. 897, describes a new method of compressing the vessels supplying the thigh, so as to render operations in the region of the hip-joint practically bloodless. The principle is as follows. The limb about to be operated upon is first elevated and emptied of blood. A strip of black India-rubber bandage, about two yards long, is to be doubled and passed between the thighs, its centre lying between the tuber ischii of the side to be operated upon and the anus. A common calico thigh-roller must next be laid lengthways over the external iliac artery. The ends of the rubber are now to be firmly and steadily drawn upwards and outwards, one in front and one behind, to a point above the centre of the iliac crest of the same side. They must be pulled tight enough to check pulsation in the femoral artery. The front part of the band passing across the compress, occludes the external iliac; the back half of the band compresses the vessels coming out of the great sacro-sciatic notch. The ends of the bandage thus tightened must be held by the hand of an assistant placed just above the centre of the iliac crest. In this way an elastic tourniquet is made to encircle one of the innominate bones, checking the whole blood-supply to the lower limb, and it is altogether out of the surgeon's way in any operation at or about the hip-joint.

1309. *Mapother on Hæmorrhagic Ulcer of the Head.*—Dr. E. D. Mapother, at a meeting of the Academy of Medicine in Ireland (*Lancet* of May 1883, p. 932), exhibited a girl who was the subject of a hæmorrhagic ulcer of the head. She was 16 years old, and had scarcely menstruated at all; but a wound of the head, which she had received about thirteen years since, healed and remained so until about three months previously, when an oozing of blood took place at the site of the wound, and there seemed little doubt as to the connection of the ulcer with the almost total suppression of the catamenial period. [A series of cases, illustrating the various sites from which vicarious menstruation has taken place, are noted in Sect. 1143 of the *Medical Digest*, and since the issue of the last edition of that work, several other cases have been reported in the *Lancet*, Vol. i., 1882, p. 786; Vol. ii., 1882, pp. 879, 1013; and in the *Medical Press*, Vol. i., 1882, p. 115.—*Rep.*]

1310. *Walsham on Removal of a Deep Sebaceous Cyst of the Neck through the Mouth.*—Mr. Walsham, in the *Lancet*, May 1883, p. 767, notes a case of a cyst in a woman, aged 34, on the right side of the neck, extending downwards for about two inches, and upwards into the mouth. An incision was made in the floor of the mouth, the capsule of the cyst was opened, and the contents shelled out from amongst the muscles of the tongue and hyoid bone. There was no hæmorrhage, and the wound healed rapidly without any trouble, gentle pressure being maintained on the neck for a few days, and the mouth constantly syringed with weak carbolic solution.

1311. *Herschell on the Urethragraph.*—Dr. George Herschell, in the *Lancet*, June 1883, p. 943, describes a new instrument which he calls the 'urethragraph,' and by which it is possible to obtain, in the simple act of withdrawing it from the urethra, a graphic representation of the whole length of the canal, in the form of two lines more or less parallel, traced upon a strip of smoked paper. A woodcut is given of the instrument, with a detailed description as to

how it is to be used. Messrs. Weiss and Son are the makers.

1312. *Holmes on Suture of the Musculo-spiral Nerve Five Months after its Complete Division.*—Mr. T. Holmes, in the *Lancet*, June 1883, p. 1034, reports a case of a man who was admitted into St. George's Hospital suffering from paralysis of the right wrist, the result of a wound received five months previously. He could not extend the wrist or fingers at all, and supination was impossible in the extended position of the forearm. There was decided loss of temperature over the outer aspect of the forearm, and sensibility had diminished in the same situation as well as over the back of the wrist and hand. The limb was much wasted, but the electrical reaction of the muscles was not tested. On March 10, 1881, the old scar was opened up, and after some dissection the two ends of the nerve were found; on extending the limb, it was found possible to draw the ends together; the ends were trimmed up, and a catgut suture was put through the sheath on one side and a silk suture on the other. The operation was performed antiseptically. The wound united by first intention. On March 14 it was noted, 'There is a tingling sensation in the arm, localised to no particular area.' On March 15: 'There certainly seems some power of extension returning.' The patient left the hospital at his own wish in a few days, and nothing was seen of him for two years, when he returned to show how completely he had recovered. There was no perceptible difference between the two arms. Sensation was perfect, and all the movements of extension of wrist and fingers were performed as well on one side as on the other. The patient said it was about a year before he noticed any improvement; then he began to mend rapidly. Mr. Holmes supplements this paper with remarks on Mr. Wheelhouse's well-known case of suture of the great sciatic nerve; reference is also made to a case under Mr. Birkett, where the muscles regained power some two years after the division of the musculo-spiral nerve; the reason given being that the whole trunk of the nerve was not divided in this case. [An interesting series of cases of suture of various nerves may be consulted by reference to Sect. 1249 : 2, *Medical Digest*.]

1313. *Clay on the Ligature-Tightener.*—Mr. Clay, in the *Lancet*, June 1883, p. 997, describes an instrument for the purpose of tightening and securing a ligature applied to a structure so situated that the fingers cannot be efficiently applied to tighten it. A wood-cut is given, showing that it is worked as an ordinary wire-rope *écraseur*, the ends of the ligature being fastened to the stem of the instrument. Messrs. Mappin & Co., of Birmingham, are the makers of the instrument.

1314. *Savory on the Value of Physiology in the Practice of Surgery.*—Mr. Savory, in the *Lancet*, June 1883, p. 991, records an instance of the value of physiology in its direct application to the practice of surgery. A man was admitted with aneurism of the second and third portions of the right subclavian artery. In deliberating as to whether it was advisable to ligature the common carotid or the axillary artery, or both, it was demonstrated that the effect of pressure on the carotid was the sudden and striking reduction in the force and frequency of pulsation in the aneurism, due directly to the effect upon the action of the heart of irritating the pneumogastric—the inhibitory nerve. Waller, more than twenty years ago, called attention to this effect

of mechanical irritation by simple pressure on the trunk of the nerve; and Czermak, it is well known, by pressing his vagus against a small osseous tumour in his neck, was able to stop the beating of his heart. Tracings were taken of the pulse, and pressure on the pneumogastric produced a marked slowing of the pulse, but there was little or no diminution in the force of the beat.—[*Vide Medical Digest*, Sects. 730 : 1; 762 : 2; 1444 : 6.]

1315. *Lucas on a Form of Late Rickets associated with Albuminuria.*—Mr. Clement Lucas, in the *Lancet*, June 1883, p. 993, draws attention to the form of rickets which he has lately noticed, occurring about the age of puberty, the true cause of which has not hitherto been described or discovered. This form of rickets, Mr. Lucas suggests, should be called the 'rickets of adolescents,' so as to associate its etiology with the albuminuria of adolescents pointed out by Dr. Moxon (*Medical Digest*, Sect. 1008 : 2). The enlargement of the epiphyses is not so great as in early life, but the disease more commonly shows itself in a yielding of the ligaments, rather than in a bending of the bones. It is a point not generally recognised, that curvature of the spine, coming on in adults, is nearly always associated with albuminuria. This statement does not refer to females, as Mr. Lucas has not examined the urine in female patients, but he has long thought that the rachitic state of health, which may be observed about the age of puberty, is imperfectly accounted for by the temporary indispositions consequent upon the menstrual molimina. Notes of four cases of rickets of adolescents are given, the urine in all of them containing albumen until they were put under treatment of iron and cod-liver oil.

1316. *Watson on the Propriety of the Inversion of Patients in Chloroform-Syncope.*—Dr. Watson, in the *Lancet*, March 1883, p. 401, says that 'syncope is the chief source of danger to the patient and of anxiety to the surgeon during the administration of chloroform.' This may take place before suspension of the respiration or simultaneously with it. All old text-books advise inversion of the patient in cases of chloroform-syncope, but Dr. Watson endeavours by his paper to banish this old idea, and to show that it is best to allow the patient to lie perfectly horizontal, by this means favouring the flow of arterial blood to the lungs and brain instead of gorging the vessels of the brain with venous blood, as is done when the patient is inverted. A slight error is made by Dr. Watson, which he has corrected in a subsequent number of the *Lancet*. Dr. Watson does not intend the patient to be placed in the prone position, but in the horizontal and supine position. [The large number of careful observations upon the value of placing the head downwards in cases of chloroform-asphyxia demand that Dr. Watson's practice should be carefully examined before acceptance. Dr. Moxon (*Lancet*, March 1881, p. 528), in his most interesting remarks upon the action of the choroid plexus, also raised his protest against the head-downward position in such cases, as being contrary to theory. *Vide Medical Digest*, Sect. 440 : 1.—*Rep.*]

1317. *Curtis on Foreign Body in the Urethra.*—Mr. W. Curtis, in the *Brit. Med. Jour.*, May 1883, p. 956, records a case of a man, aged 42, who had thrust a large shawl-pin down his urethra. On admission to the hospital, a foreign body could be felt lying along the under side of the penis, from its lower half towards the perineum, and about the middle of

the penis a sharp point was discovered. A small incision was made through the skin, and the point was seized by a pair of forceps and drawn out. The head was found intact in the urethra; the point of the pin was therefore depressed, and the head pushed up through the urethra and drawn out through its orifice. A catheter was then passed, and left in the bladder twenty-four hours. Blood was passed in the urine several times afterwards. No urine escaped from the wound, and the patient was cured in a week.

1318. *Smith on a Successful Case of Gastrostomy for Intestinal Obstruction.*—Mr. Alder Smith, in the *Brit. Med. Jour.*, May 1883, p. 999, publishes a successful case of gastrostomy performed by Mr. Savory on a woman, aged 53, who was suddenly seized with intestinal obstruction on the evening of January 2. She vomited freely at the onset, but after one or two hypodermic injections of morphia the sickness ceased; she seemed comparatively easy till the afternoon of January 6, when the vomiting came on again, the abdomen became much distended, and the patient rapidly grew worse; it was then decided to operate. Mr. Savory opened the abdomen, and found a portion of the ileum tightly nipped by some band or constriction. On pulling this portion of the ileum and breaking through a band, a loop of strangulated intestine came out. As soon as the constricted portion was found to be pervious to flatus, the intestines were at once returned and the wound dressed. The patient was kept under opium for some few days, and made a good recovery. The case illustrates the value of operating early.

1319. *Ward on Cases of Fracture of Patella Treated by Suture.*—Mr. E. Ward, in the *Brit. Med. Jour.*, June 1883, p. 1118, reports five cases of fractured patella treated at the Leeds General Infirmary by suture. The wound was dressed according to the Listerian method in each case, the results being most satisfactory. The general plan adopted was to make a vertical incision (except in cases where there was a wound of the skin; then this was enlarged): the joint was freely opened and well washed out, the broken fragments drilled, and strong silver sutures were passed through the holes. If traction on these sutures were not sufficient to bring the two halves together, then Malgaigne's hooks were used. In one case, where great tension was required to bring the broken fragments together, there was a rise of temperature in the evening of the day of operation; and another case, where dirt and grit had entered the joint, suffered for about ten days from a rise of temperature ranging from 101 to 102. The other cases had little or no fever throughout.

1320. *Hamilton on Rupture of the Bladder.*—Dr. J. B. Hamilton, in the *Brit. Med. Jour.*, June 1883, p. 1166, records a case of a man who had been drinking about a gallon of porter, and two or three hours afterwards fell from a window on to the pavement, a height of 20 feet. He was picked up and taken to the hospital. Twelve hours later he complained of pain in the abdomen, and was unable to pass urine. A catheter was passed, drawing off eight ounces of urine, mixed with rather bright blood; in the evening, ten ounces of urine were again drawn off. Next day there was much tympanites, the urine being drawn off. The third day the urine was clearer, but the catheter was used night and morning; the patient's condition seemed to improve until the evening of the fifth day, when the pulse became very weak; he suddenly grew faint, and died five days and four hours after

the fall. A *post mortem* examination showed a rent in the anterior and upper portion of the bladder; the abdomen contained sixty ounces of dark-coloured fluid, evidently escaped urine. The peritoneum was perfectly normal; all the other organs were healthy. The peculiarities of the case seem to be—1, the length of time (over five days) the man lived after the injury; 2, the total absence of peritonitis; 3, the presence of sixty ounces of urine in the abdomen, though eight or ten ounces were drawn off morning and evening. [This case well illustrates several of the interesting points brought forward by Dr. Marion Sims in his admirable paper published in the *Brit. Med. Jour.*, February 1882, pp. 223, 261.—*Rep.*]

1321. *Holmes on Primary or Immediate Ligation of the Femoral Artery in Popliteal Aneurism.*—Mr. T. Holmes, in the *Brit. Med. Jour.*, June 1883, p. 1106, records three cases of popliteal aneurism which have been lately treated at St. George's Hospital by the Hunterian operation, without any previous trial of compression. As the old practice of dividing the artery between two ligatures is being reintroduced by Mr. Walsham and other surgeons at St. Bartholomew's Hospital, the author thought it would be interesting to have the subject of ligation of the femoral artery brought forward. Mr. Holmes is confidently of the opinion that the safest plan of treatment for all large, all rapidly growing, and all thin-walled popliteal aneurisms is to tie the femoral artery at once—*i.e.* after a few days' confinement to bed. The author remarks on the practice adopted by Mr. Walsham, that the advantages in favour of it do not compensate the obvious drawbacks that are involved in making a free dissection and exposure of the artery, and that two ligatures are more dangerous than one as regards secondary hæmorrhage. Mr. Holmes believes also that the safest material for the ligation is either the ox-aorta ligature of Mr. Barwell, or the kangaroo-tendon ligature introduced by Mr. Stirling at St. George's Hospital.

1322. *Carver on Acute Necrosis of the Orbit.*—Mr. Carver, at a meeting of the Cambridge Medical Society, read the notes of the following case (*Brit. Med. Jour.*, June 1883, p. 1182). A strong-looking man, aged 21, came to London on a visit on March 28, when the left eyelid began to swell and was painful. The swelling rapidly increased. An incision was made, a little fluid escaping. Next day another incision was made, and pus escaped. On March 30 the patient complained of pain at the top of the head, the pain in the eyeball became very intense, the temperature 103°, pulse 120, skin hot and dry. There was no delirium. On March 31 there was profuse discharge from the lid, and the pain was better. About 7 P.M. the patient became very delirious, and died at 8 A.M. on the morning of April 1 from collapse. The necropsy revealed the whole of the orbital vault to be dry, bare, and of yellowish colour; the frontal sinuses filled with pus, and the lining membrane acutely inflamed. The dura mater at the spot, corresponding with the middle orbital plate, was thickened, adherent, and sloughing. All the convolutions of the brain were covered with tenacious offensive pus. There was no history to enable one to assign a cause for the attack, the patient himself attributing it to the cold wind.

1323. *Marsh on Operations on Phthisical Patients.*—Mr. Howard Marsh, in the *Brit. Med. Jour.*, June 1883, p. 1121, reports four cases where

be performed operations on patients suffering from well-marked phthisis. One case was that of a man whose thigh was amputated in the middle third, the patient being discharged six weeks afterwards, gaining flesh and strength, with much less cough than when admitted. The second case was that of a man whose left wrist-joint was diseased, and who at the time of operation was losing flesh and sweating a great deal at night. The wrist-joint was amputated, and the patient improved greatly in his general condition. A third case required Syme's amputation for disease of the ankle-joint, and was marked by general improvement in health. The fourth case was one of disease of the tarsus, on whom Pirogoff's amputation was performed, with decided benefit to the general health of the patient. Mr. Marsh remarks that the old practice of not operating on patients suffering from phthisis is an error in many cases, as much can be done in removing a local disease, which of itself often causes a rise of temperature to 102° or more, independently of any phthisis. The arguments that apply to a case of fistula do not hold good in cases such as those given by Mr. Marsh. [A large series of cases that have occurred during the last thirty or forty years may be consulted at Section 1630 : 3 of the *Medical Digest*.]

1324. *Myrtle on some Common Affections of the Anus often Neglected*.—Dr. Myrtle, in the *Brit. Med. Jour.*, June 1883, p. 1061, comments upon some of the common affections of the anus. The first he notices is pruritus ani, which is most painful to bear, and which, when it has existed for a long time, causes the mucous membrane, through constant scratching, to become hard, thick, and corrugated; then nothing effects a cure but the removal of the whole affected skin and mucous membrane by the knife. Fissure is of much more common occurrence than one would at first believe, and is only successfully treated by an operation. Haemorrhoids are often neglected, and it is a common remark, 'Never mind, bleeding piles are safe; take a spoonful of electuary at bed-time.' This is bad advice, as an operation is nearly always needed. Another affection to which attention is drawn is a form of neuralgia produced by cold, either from the bed-clothes being too scanty or from sitting on a cold seat. This is best relieved by warmth. In nearly all these cases, Dr. Myrtle insists that a surgeon should see the case, as medical treatment is of little use.

1325. *Taylor on the Treatment of Spermatorrhœa*. Dr. H. C. Taylor, in the *Brit. Med. Jour.*, March 1883, p. 562, writes saying that in cases of spermatorrhœa he adopts three modes of treatment—(1) moral, (2) hygienic, (3) medicinal. A mixture containing tincture of perchloride of iron and tincture of nuxvomica given twice a day, with a pill containing a fourth or a third of a grain of belladonna with three grains of camphor, at first every night, then every other night, before going to bed, seems to be the best medicinal treatment. At page 600, Dr. Adam recommends the following prescription for spermatorrhœa. *R. Liquor. strychnicæ ʒi, acid. phosphor. dil. ʒiv., tinct. cardam. co. ʒvj., infus. calumbæ ad ʒviij. Sumatur ʒss. nocte maneat ante cibum.*

RICHARD NEALE, M.D.

1326. *Wagner on the Treatment of Fracture of the Larynx*.—Dr. W. Wagner of Königshutte, in a contribution to the *Centrabl. für Chir.*, No. 23, 1883, points out that fracture of the larynx is very rarely met with, and that not even the most experienced surgeons are in a position to derive from

personal experience fixed rules for treating this injury. Most observers, however, agree that in such cases the first indication is the performing of tracheotomy in order to prevent suffocation. Occasionally, where there is much displacement of the fragments, it is advisable to perform thyrotomy. A case is reported of multiple fracture of the larynx, which led the author to consider the subject of the treatment of this injury, and convinced him that further therapeutic measures were necessary beyond opening the trachea. The subject of this case was a robust and very powerful man, whose neck had been forcibly squeezed in a fight. He remained unconscious for about half an hour, and on recovering himself found that his breathing was very bad. On the following day, when the patient first came under the notice of Dr. Wagner, there was extreme dyspnoea; and, with coughing, much blood, partly fluid, partly coagulated, was brought up. The face, neck, and surface of the thorax were distended through emphysema. There was found to be free abnormal mobility of the left wing of the thyroid cartilage; and during the prompt performance of superior tracheotomy the cricoid was found to be also fractured, and partly torn away from the upper ring of the trachea. The patient did well up to the third day after the date of operation, when signs were presented of hypostatic pneumonia on the left side, and there was a complaint of acute pain beneath the sternum. On the evening of the fourth day, there was free bleeding from the wound in the trachea, and on the following day the patient died. On *post mortem* examination, there was found to have been mediastinal emphysema and suppurative mediastinitis. The lungs, with the exception of the lower lobe on the right side, appeared quite healthy. Dr. Wagner thinks now that in any similar case of laryngeal injury thyrotomy would be indicated, not so much for the purpose of replacing any fragments of cartilage, as for rendering the seat of fracture antiseptic and for maintaining for a time this antiseptic condition. In a recent case of this kind he would, after having plugged the trachea, incise the larynx in the middle line, and then separate the two wings of the thyroid cartilage so as to be able to see the whole of the interior of the larynx and to apply some antiseptic fluid. He would then plug the interior of the larynx with small pieces of iodoform gauze. The wound would thus be rendered antiseptic, the fragments of broken cartilage be kept at rest, and the risk of hæmorrhage be diminished. If there be no longer any danger of infection, a late thyrotomy, it is held, is still justifiable if performed with the view of putting displaced fragments of cartilage in a better position, and, if the thyroid cartilage be fractured, of uniting the *alæ* by silver suture. If the fragments of the thyroid cartilage cannot be thus united, or if stenosis cannot be prevented, Dr. Wagner would advocate extirpation of the partially detached portion of thyroid cartilage, and even removal of half the larynx. In a case reported by Billroth in which this partial operation had been performed, a good voice was retained, and, at all events, the patient is thus placed in a better position than that of having to go through life with a completely useless and much obstructed larynx.

1327. *Kümmell on Deligation of the Common Iliac Artery*.—The following case, treated by Professor Schede, was reported by Dr. Kümmell, of Hamburg, at the twelfth congress of the German Surgical Society (*Centrabl. für Chir.*, No. 23, 1883). The

patient, a man aged 21, was first operated on for inguinal bubo on each side. On the left side, it was thought necessary to perform total extirpation of a mass of enlarged glands situated on the sheath of the large vessels. The wound, which had been covered by carbolic gauze, which unfortunately was old and deprived of most of its antiseptic properties, became infected, and was soon covered by a greyish diphtheritic deposit. Four days after the operation, there was free hæmorrhage from the perforated femoral artery. Professor Schede applied a double ligature to this vessel, divided it between the two ligatures, and applied dressings of corrosive sublimate to the wound. This put on a healthy appearance and was almost wholly clean, when, on the fourth day after the application of the ligatures, profuse secondary hæmorrhage came from the proximal end of the femoral artery. As it was impossible to secure the bleeding vessel *in loco*, the external iliac artery was tied by the usual incision through the abdominal muscles. The bleeding from the femoral artery, however, still persisted, and a second ligature applied to the external iliac just below the bifurcation had an equally bad result. The common iliac artery was then tied. An incision about two inches and a half in length was made at right angles to that made over the external iliac vessel, the peritoneum was pushed upwards, and, after some trouble had been experienced in isolating the vessel, a catgut ligature was applied to the common iliac. The hæmorrhage from the femoral ceased at once. The patient did well for a few days. On the morning after the operation, the circulation was completely restored in the whole of the corresponding lower extremity, and its sensibility and mobility were normal. Ten days later, however, there was serious retrograde hæmorrhage from the peripheral end of the femoral artery at the seat of the original deligation. A ligature was applied about three-quarters of an inch below this point, but did not arrest the bleeding, and then three large vessels were observed coming off from the femoral artery between the ligature and the seat of hæmorrhage. These having been secured by ligatures, the bleeding was arrested, but unfortunately the supply of arterial blood to the leg was thus cut off. Gangrene came on, and on the third day there was a distinct line of demarcation near the junction of the middle and upper thirds of the leg. Notwithstanding his extremely exhausted condition after all these operations, and a subsequent attack of chronic pyæmia with metastatic abscesses in the muscles of the buttock and arm, and effusions into the right knee, elbow, and temporo-maxillary joints, the patient recovered so far that he was able to leave the hospital on crutches.

Deligation of the common iliac artery has, Dr. Kümmell states, hitherto been performed fifty-five times, chiefly by English and American surgeons. Only three cases, all fatal, have been recorded in which this operation had been performed by German surgeons. The indications for performing the operation have been hæmorrhage from the external iliac, or from any large pelvic artery after wound or ruptured aneurism, aneurism of the femoral or external iliac arteries, and, finally, prevention of hæmorrhage during amputation at the hip and extirpation of tumours. In forty-one of these cases death resulted through collapse, gangrene of the extremity, and, most frequently, septic infection. In three only of twenty-two fatal cases in which a ligature had been applied to the common iliac artery for the cure of

aneurism was death due to gangrene, whilst in twenty-six fatal cases in which the external iliac had been tied for aneurism, this operation was followed by gangrene in eleven. Thus it seems that deligation of arteries situated nearer to the heart is much less dangerous to the vitality of the lower extremity, and is followed by more speedy and ready establishing of a collateral circulation. Deligation of the common iliac artery, therefore, is to be preferred in cases of high aneurism of the femoral, and of aneurism of the external iliac, even when it is possible to apply a ligature to this vessel.

1328. *Nepveu on Resection of the Wrist for Disease*.—In a contribution to the May number of the *Revue de Chirurgie*, Dr. G. Nepveu, of Paris, gives an analysis of sixty collected cases of pathological resection of the wrist. Of these, six cases, which are published at length, occurred in the hospital practice of M. Verneuil. In seventeen of the cases, the operation had been performed by Esmarch. In twenty-eight only of the sixty cases does the resection seem to have been total. Dr. Nepveu's list, however, is evidently a very incomplete one, and no reference is made to Lister's published cases. Dr. Nepveu's views as to the operation are expressed in the following conclusions.

1. Carpal, radio-carpal, and carpo-metacarpal resections for disease are not very serious operations with regard to life, especially when they are performed antiseptically.
2. They are sometimes followed by good results, with regard to removal of the local disease and preservation of an useful limb.
3. Perfect results, however, are very rare, and have been observed in barely one-fourth of the number of cases. The most frequent result is an incomplete cure, and very imperfect restoration of the function of the extremity.
4. More serious terminations are just as frequent. Sometimes the operation itself is directly or indirectly fatal; at other times, it does not arrest the course of the disease, and amputation through the forearm becomes necessary. Again, notwithstanding a good local result, the patient succumbs sooner or later to pulmonary tuberculosis.
5. With regard to a definite and complete curative result, resection of the wrist is not a promising operation.
6. This failing of the operation is due in part to the fact that it has been frequently practised under very unfavourable conditions. It is contra-indicated in cases of osteo-arthritis, and particularly of articular and tendinous synovitis with tubercular deposits, which should be treated promptly by amputation. Resection, probably, should be rejected in the treatment of disease of the wrist in old people and in phthisical subjects, and should be practised but exceptionally in cachectic scrofulous patients.
7. To improve the functional results, it is necessary to diminish the extent of the operative procedure, to extract as little bone as possible, and to preserve as much as one can of the dorsal and plantar layers of ligamentous and periosteal structures.
8. Above all, it is necessary not to operate until all the resources of conservative therapeutics have been exhausted. Rest, compression, blistering, drainage, prolonged antiseptic baths, have given excellent results in cases where the constitutional condition was so serious as to forbid any operative interference. The results of this combined treatment compare not unfavourably with those of resection, even in cases where operative interference seemed justifiable. Dr. Nepveu does not discuss the subject of traumatic resection of the wrist, as he

cannot imagine how this operation is ever likely to be thought necessary.

1329. *Prince on the Bead Suture*.—Dr. David Prince, of Jacksonville, U.S., describes in the *Annals of Anat. and Surg.*, March 1883, a modification of the quilled suture for palatoplasty, and for use in situations in which the suture line requires to be supported for several days. The procedure to which attention is thus directed is an interrupted suture in which two sutures are joined in one, so that a bead at either lateral extremity of the suture has a wire or thread passing through its centre. The twist of the two ends of the wire enables the operator to increase or diminish the tension after the suture line has been closed. This, it is suggested, is a very desirable quality of a stitch in a situation like that of the mouth, the stitch having no covering, and the suture line having no possible support except that of the stitches themselves. The suture is equally applicable to operations in the vagina, where any support to the stitches is impracticable. Beads of polished glass, on account of their smoothness, are superior for this purpose to spheres of lead. There is no trouble in adjusting spherical beads, and, as they lie loosely upon the silver wire, they are ready, when the wire is cut at the final removal of the stitches, to slip off without difficulty. The manner of application of the bead suture, Dr. Prince states, is very simple and easy; but it cannot be well explained without reference to the cuts by which his article is illustrated. There are many situations in which the employment of this beaded suture will, it is thought, be found convenient and efficient. The principle of this stitch is not new, but only the form and material of it. When this stitch is employed on the soft palate it answers at the same time the purpose of a suture and of a splint, and holds in continuous apposition parts that are moved in every act of swallowing and speaking. The same advantage is to be derived from the use of this bead suture in operations for the closure of rents in the vagina, where movements occur during evacuation of the rectum and bladder.

1330. *Fenwick on Excision of the Knee-joint*.—Dr. G. Edgeworth Fenwick, of Montreal, has recently published a small work on excision of the knee, with a report of twenty-eight cases in which this operation has been performed at the Montreal General Hospital. The total number of cases at all ages was twenty-eight, and of these two only were fatal. In one of these, death cannot be considered as due to the operation. In two cases the leg had to be amputated subsequently, and both patients recovered. All the others left the hospital with useful limbs. The last fifteen cases were treated with full antiseptic precautions, and all recovered. The patella was removed in every case. In all the successful cases, firm conjunction was obtained in from eight weeks to four months. Dr. Fenwick advocates warmly the use of Dr. Watson's apparatus during the after-treatment, and brings prominently forward a method of section of the bones which in his hands has yielded excellent results, and to which he attributes much of his success. In removing the head of the tibia, the section should be made from behind forwards, rendering it concave, and fitted for the reception of the extremity of the femur, which has been rounded off on section and rendered convex.

1331. *Stokes on Nerve-Stretching in Tabes Dorsalis*.—In a paper on the therapeutic value of nerve-stretching in tabes dorsalis, read at a meeting of the

Surgical Section of the Academy of Medicine in Ireland on April 20 (*Dublin Journal of Medical Science*, June 1883), Mr. Stokes first pointed out that the evidence afforded by the cases of tabes dorsalis treated by nerve-stretching, indicated the fact that relief may be anticipated from some of the most distressing symptoms of that disease, if the operation be performed sufficiently early. The absence of a physiological explanation as to how the operation acts is no reason, he considers, for its rejection. He has performed this operation in two well-marked examples of the disease, in one of which the sciatic nerve was stretched on one side, and in the other on both sides. Although the operations were not followed by any signal improvement in motor power, the results in other respects, as regards relief from darting pains, vesical irritability, and return of sensibility in certain regions of anesthesia, were satisfactory and encouraging. Mr. Stokes insists on the importance of estimating accurately the amount of force that should be used, and is of opinion that a very moderate amount is sufficient to obtain the desired therapeutic results. He believes that many of the recorded failures of the operation are to be attributed to the employment by the surgeon of an undue amount of force. He advocates the use of an electric cord and dynamometer in nerve-stretching, and believes that in the case of the larger nerves a force of ten pounds would be found sufficient. Although a satisfactory physiological explanation as to how nerve-stretching produces the results observed is still to be obtained, we are not, it is believed, wholly in the dark. Dr. Brown-Séquard and Dr. Charlton Bastian are quoted, to show that after the operation a certain amount of vaso-paralysis is produced, resulting in vascularity and increased temperature of the part, and that the improvement which occasionally follows the operation is probably connected with those phenomena.

1332. *Robson on Separation of the Lower Epiphysis of the Femur*.—Mr. A. W. Mayo Robson, of Leeds, in a paper on separation of the lower epiphysis of the femur (*Liverpool Medico-Chirurgical Journal*, July 1883), puts on record three cases of this rare lesion, which have occurred during the last twenty years in the Leeds General Infirmary, under the care of Mr. Hey, Mr. Wheelhouse, and Mr. Atkinson. In the first of these cases, amputation of the thigh was performed on the forty-third day for gangrene; in the second case, primary amputation of the thigh was performed; and, in the last case, excision of the displaced epiphysis was practised in the twelfth week after the receipt of injury. Reference is made in the new edition of Holmes and Hulke's *System of Surgery* to two cases only of separation of the lower epiphysis of the thigh-bone; and in Dr. Hamilton's work on *Fractures and Dislocations* five cases are quoted, in four of which amputation had to be performed. In all the recorded cases, extreme direct violence was the cause of the diastasis. In one of the cases mentioned, the nature of the injury remained doubtful for a time, in consequence of the external swelling. In most cases, however, there can, Mr. Robson states, be but little difficulty in the diagnosis, since the shortening of from one to two inches, the projection of the lower end of the diaphysis in the popliteal space, the displacement of the epiphysis on to the front of the femur, and the interference with the circulation in the leg, taken together with the cause of the injury and the age of the patient, form a group of symptoms pathognomonic

of this form of fracture. The dangers, besides the usual ones consequent on so severe an injury, arise from the pressure of the lower end of the fractured shaft on the popliteal vessels, interfering seriously with the circulation in the leg, and either producing great oedema or gangrene, or else leading to secondary hæmorrhage. As regards treatment, Mr. Robson thinks that reduction under ether would be the best plan to try at first; and this, it is pointed out, would certainly be facilitated by division of the tendo Achillis. Then, after reduction, either the long splint with weight and pulley, or the double inclined plane, might be employed. Should reduction be impossible, or retention of the fragments unattainable, then excision might be adopted; but if the large vessels have been ruptured, or if gangrene occur, then amputation can be the only resource.

1333. *Lidell on Contusion of the Spinal Cord.*—The following is an abstract of a portion of an original communication (*American Jour. of the Med. Sciences*, July 1883) on contusions of the brain and of the spinal cord, by Dr. John A. Lidell, late surgeon to Bellevue Hospital, New York. Contusions of the spinal cord are of frequent occurrence, and are often met with in cases of vertebral fracture and dislocation. In such cases, it very often happens that the theca is not torn; and, not unfrequently, on laying it open, and finding the spinal pia mater entire and without ecchymosis, and the exterior of the cord as well free from any morbid appearance, one might imagine the cord itself to be uninjured, while, at the same time, the grey substance of its interior is extensively disorganised and infiltrated with dark-coloured blood, in consequence of the bruising to which the cord has been subjected. In cases where the rachidian concussion is very severe, and there is severe contusion of the cervical part or the beginning of the dorsal part of the cord, the prognosis is always very bad, for the patient is liable to perish before reparation of the bruised cord-substance can be effected, in consequence of suffocation slowly produced by stagnation of venous blood in the lungs, due to the respiratory movements not being adequately performed; a necessary result when the conducting functions of the cord are suppressed in the cervical region, and all the respiratory muscles save the diaphragm are paralysed. When, however, the contusion is seated in any portion of the spinal cord whereof the constituent filaments and nerve-cells do not exert any control over the movements of the muscles employed in the act of breathing, repair and recovery may doubtless be effected, and the prognosis in such cases is therefore much more favourable. At any rate, it is scarcely more unreasonable to expect to obtain the cure of such cases by treating them judiciously, than it is to expect to obtain the cure of so-called infantile spinal paralysis, wherein the lesion consists of disorganisation of the grey matter in the anterior cornua of the spinal cord. In conducting the treatment of contusion of the substance of the spinal cord, the indications to be fulfilled are: (1) to promote absorption of the extravasated blood; (2) to lessen the hyperæmia of the cord, both arterial and venous, which is always liable to supervene in such cases; and (3) to prevent the development of myelitis, especially its suppurative and diffuse or ascending forms, as well as the development of spinal meningitis. A remedial measure of great importance in such cases is quietude or rest of the injured part, as nearly absolute as possible. The prone position is considered to be

preferable to the supine, unless it greatly discomfort the patient, for it readily permits the application to the back of leeches or cups, or the ice-bag. At the same time, the back being the highest instead of the lowest part of the body, the tendency to hypostatic congestion of the rachidian veins is much diminished by the prone posture of the patient, and the tendency to myelitis and spinal meningitis is also correspondingly lessened. Rachidian congestion, venous as well as arterial, can, Dr. Lidell asserts, be considerably lessened by administering iodide of potassium in ten-grain doses, or full doses of fluid extract of ergot. The treatment of simple concussion of the spine, or of concussion complicated with slight contusion of the substance of the cord should, it is held, consist in the application of numerous dry cups to the back on each side of the spinous processes, in the administration four times a day of extract of belladonna in doses of a quarter of a grain, and in rest in bed. Should the patient refuse to rest quietly in bed until the spinal symptoms have entirely passed away, he will be very liable to acquire suppurative myelitis and incurable paraplegia.

1334. *Pinner on a Case of Fat-Embolism.*—The following case from the hospital of Prof. Maas is recorded by Dr. O. Pinner in the *Berlin Klin. Wochenschr.*, No. 13, 1883; and also by Dr. Janicke, of Breslau, in the *Centrbl. für Chir.*, No. 25, 1883. The patient, a man aged 61, was run over and received a compound fracture of the head of the left fibula, with extensive crushing and bruising of the soft parts. At the first examination of the injured limb, the blood flowing from the wound was observed to be mixed with oil. Although the wound remained in an aseptic condition, and the patient had recovered from the immediate effects of the injury, death occurred on the third day after the appearance of symptoms which indicated pulmonary and cardiac disturbance, and also some mischief in the sensorium. At the necropsy the following abnormal conditions were observed: extensive crushing of the subcutaneous adipose tissue about the seat of fracture in the left leg; fat-embolism, considerable and well marked in the lungs, slight in the kidneys; intense pulmonary oedema; much oil mixed with the blood in the left cavities of the heart, and a smaller quantity in the right cavities and in the sinuses of the base of the cranium; pulmonary emphysema; slight hypertrophy of the right ventricle; traces of chronic bronchitis. Microscopic examination revealed fat-emboli scattered throughout both lungs, and a few isolated similar deposits of oil in the renal structure.

There can be no doubt, Dr. Pinner states, that the fatal result in this case was due to fat-embolism of the lungs. The lesser circulation had been rapidly invaded by large quantities of oil, and the effects of this condition rendered more serious in consequence of the pre-existing emphysema and chronic bronchitis. The disproportion between such abundance of fat in the circulation, and such a small fracture, is explained by the supposition that the extensive injury to the subcutaneous adipose tissue which complicated the injury to the bone, contributed to the absorption of oil by the open blood-vessels, the discharge of this oil externally having been obstructed or wholly prevented. With regard to the negative results of the examination of urine in this case, Dr. Pinner is of the opinion, which is supported by the microscopical observations, that the excretion of

oil by the kidneys had not commenced before death. It seems very probable from this case and from the observations of Scriba, that the elimination rarely takes place before the third or fourth day after the injury. In conclusion, Dr. Pinner remarks with regard to Scriba's statement that in pure fat-embolism there is a lowering of the temperature, that in cases of fracture there is not unfrequently a not considerable rise in consequence of the absorption of fibrin-ferment. Thus, in a case of fat-embolism from fracture, there may be two factors which may more or less neutralise each other.

1335. *Lange on Extirpation of the Rectum for Cancer.*—In January of this year, Dr. Lange brought under the notice of the New York Surgical Society (*Annals of Anat. and Surg.*, July 1883) a patient from whom he had removed the lower part of the rectum for cancer, and, to facilitate the operation, had also removed the coccyx. The patient had been operated upon twice, the second time for recurring disease within the pelvis, in the depth of the ischio-rectal fossa. This case was put on record, in order to illustrate the comparatively good functional result which followed the operation. The patient was able to control the discharges from the bowels perfectly. Flatus escaped, however, without control on the part of the patient. The first operation was performed in January 1882, and the second operation in the following October. The coccyx was removed at the first operation. At the second operation some extent of mucous membrane was removed on account of prolapsus. The removal of the coccyx at the first operation facilitated operative measures very much. There was not much obstruction of the bowel before the performance of the first operation. The patient had not been aware of the existence of the disease until about six weeks previously, although extensive disease of the rectum was found at the time of the operation. He thought that he was the subject of hæmorrhoids, and had been treated for that affection. The explanation which Dr. Lange gives of the fact that the patient can control the discharges from the bowels is, that the sphincter tertius had maintained its functions. It could be felt as a weak and soft somewhat incomplete closure immediately above the new external opening.

W. JOHNSON SMITH.

1336. *Garcia on the Reduction of Paraphimosis.*—Garcia recommends a useful modification of Boyer's method. He begins by applying over the whole member, from vertex to base, a spiral bandage, narrow and wetted with cold water, the patient being told to continually pour a stream of cold water over the affected part. After five minutes the bandage is taken off and replaced rapidly by another in the same manner, but tighter; the irrigation is continued. After five more minutes, the second bandage is taken off and a third is applied, still more tightly. After a little time we may proceed to the reduction by the ordinary method, seizing the member with the index and middle finger of each hand, and pushing the glans with both thumbs. Reduction is generally easy. The number of times that the bandage must be applied depends naturally on the amount of tumefaction and the effect obtained by each application.

1337. *Fischer on Partial Resection of the Bladder.*—Fischer has made a series of experiments on dogs, resecting parts of the bladder. Of eight animals operated on five survived; in all strict antiseptic precautions were taken. He concludes from these

experiments that wounds of the bladder and its suture are not more dangerous than any other grave abdominal operation; union of the edges of the vesical wound, if the suture be carefully done, takes place without difficulty. The author prefers catgut for this kind of suture, and employs the continuous and not the interrupted form.

1338. *Minich on Iodoform in Surgical Dressings.*—The author's conclusions are these (*Atti del R. Ist. Venet. di Scienze, Lettere, ed Arti*, Vol. I.). Iodoform is of great value as an antiseptic; it is not a specific against tubercular disease of the bones and soft parts; it is a dangerous remedy, and requires care in use; it must not be applied over a large surface, especially in the tissues rich in fat, in the cavity of the abdomen, in the aged, in individuals with fatty degeneration of the heart or with albuminuria, nor in persons suffering from hysteria or hypochondriasis. The quantity used must be small, not exceeding possibly 4 grammes. The patient treated by iodoform must be watched carefully, especial attention being paid to the frequency and force of the pulse, the tendency to somnolency, and the mental state. On the occurrence of suspicious phenomena the dressing must be changed, and the little particles of iodoform carefully removed by repeated washings. With iodoform only, antiseptic medication in operations in the mouth, vagina, and rectum, is possible. Cases of poisoning, too frequent in the past, will become more and more rare since surgeons, warned by experience, use iodoform in small quantities only. In the hospital at Venice, no accident has ever happened. In one individual only, suffering from pellagra, treated for diffused inflammation of the tunica vaginalis of the right testicle, after several days' treatment with iodoform dressings, signs of delirium showed themselves, which ceased on the removal of the iodoform. G. D'ARCY ADAMS, M.D.

1339. *Sutton on Ovariectomy with Enterotomy.*—A case of enterotomy complicating an ovariectomy is related in the *American Medical News* by Dr. R. S. Sutton. The patient, 50 years of age, passed through her last labour seventeen years previously, since which time she had suffered from, as she thought, disease of the womb. She had never derived any benefit from treatment, and was obliged to live on the simplest diet, giving up altogether cooked meats on account of the pain in the abdomen after eating them. Defecation was always painful, and at times almost unbearable. She was pale and feeble; the abdomen was flat, but resonant everywhere, except along a line one inch above and parallel with Poupart's ligament. The dulness here was only slight, but on deep pressure decided pain was felt. Examination showed the uterus to be normal, with the exception of the remains of an old laceration of the cervix on the left side; but above and to the left of the uterus, and in front of the rectum, a mass about the size of a turkey's egg was discovered. It was movable upward, and tender on pressure. It was thought to be the left ovary, and probably the fimbriated extremity of the Fallopian tube, chronically enlarged and congested, adherent, and in a state of hyperæsthesia. The patient insisted that the abdomen should be opened to remove the mass, and it was accordingly done, when the tumour was found to consist of: 1, the ovary slightly enlarged; 2, the fimbriated extremity of the tube; 3, the broad ligament; 4, a loop of small intestine curve-shaped in the mass, and adherent to the broad ligament up to the fundus of the

uterus. The wall of the bowel was thickened. The gut being detached from the mass and broad ligament, it was laid on the surface of the abdomen at the margin of the wound, but broke off from its own weight and the slight traction necessary to prevent its falling back into the abdominal cavity, one end remaining in the hand of the assistant. The last end was recovered and dissected entirely free from the broad ligament, and, after removing the ovary and adhering tissue, the ends of the gut were united after the manner of Czerny. The abdominal cavity was cleaned out, and a long glass drainage-tube inserted. No spray was used, and the silk and the instruments were simply well scalded. The length of intestine removed was four inches. The patient made a good recovery, the temperature never rising above 101° F., and no drug except opium being used.

1340. *Judson on Traction in Hip-joint Disease.*—In the *New York Medical Record*, May 12, Dr. Judson has an article on the rationale of traction and counter-traction in the treatment of hip-joint disease. It is a feature of chronic joint-diseases, that there is always a certain amount of tonic spasm on the part of the muscles which move the joint. By this spasm the joint-surfaces are brought into close contact with each other, and the conditions which lead to atrophy or absorption, with consequent shortening, are developed. No extension which the patient can tolerate, or of traction, can widely separate the bone-ends, if at all. Those who regard the head of the femur as withdrawn from the acetabulum by any amount of traction, are in error. What is actually accomplished is the conquering of the muscular spasm and the rectification of malposition; seldom, if ever, anything more. But these are essential points, and no one who has his eyes opened to the true effect of traction will give it up because it does not accomplish all it had been reputed to do. Further, it will be found that no contrivance can make traction so effective as one which shall contain some India-rubber, in order to take advantage of its continuous elasticity; rubber will more quickly and more effectually tire out contracted muscles than any other substance.

1341. *Sarra on the Use of Coffee in Strangulated Hernia.*—Dr. Antonio Sarra relates (*Lyon Méd.* May 20) that he was called one evening to attend a man, aged 63, suffering from a strangulated hernia. The patient was nearly moribund, there was no appreciable radial pulse, the face was pinched, the extremities were cold, and the attempts to vomit were almost incessant. Remembering the report of a similar case relieved by coffee, Dr. Sarra ordered an infusion to be employed as a drink and also externally, and then took leave of the patient, warning the family that death was inevitable unless a prompt amelioration ensued. Upon returning early the next morning, he was surprised to find his patient in perfect health. The man stated that, soon after taking the coffee, he experienced a feeling of warmth and returning strength; then a large quantity of gas was expelled above and below; and when he put his hands upon the tumour it at once slipped back into the abdominal cavity, much to his astonishment as well as joy.

INODOROUS IODOFORM.—The peculiar odour of iodoform is found to be well masked by the addition of attar of rose, one minim to the drachm, or of essence of rose geranium, three or four minims to the drachm. The clinic room gets to smell like a florist's shop.

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

1342. ALBERTONI, PROF. P.—Cotoin and Paracotoin. (*Riv. di Chim. Med. e Farm.*, May and June 1883.)
1343. GALASSI, LUIGI.—A Simple and Efficacious Method for the Cure of Obstinate Intermittent Fevers with Preparations of Bark. (*Bollett. della Reale Accad. di Med. di Roma*, 1882.)
1344. DIANI.—Trichlorated Phenol. (*El Siglo Medico*.)
1345. EBERMAN.—On Ferruginous Koumiss. (*Medizinsky Vestnik*, 1882, No. 22.)
1346. ALBRECHT.—Inhalation of Oxygen in Tuberculosis. (*Deutsche Med. Wochensh.*, July 18.)
1347. Extractum Piscidia. (*Wiener Med. Blätter*, July 19.)
1348. VON ZIEMMSEN.—Distension of the Large Intestine with Carbonic Acid Gas. (*Ibid.*, July 19.)
1349. FRAENTZEL.—Hydriodate of Hyoscin in Phthisis. (*Wien. Med. Blätter*, July 5.)
1350. LINDNER.—Arsenic in Phthisis. (*Deutsche Med. Wochensh.*, Aug. 22.)
1351. Phosphate of Codein. (*Wiener Med. Blätter*, Aug. 16.)
1352. DUBOUE.—Ergot in Enteric Fever.
1353. ALTHAUS.—The Risks of Massage. (*Brit. Med. Jour.*, June, p. 1223.)
1354. FOTHERGILL.—Stewed Frait for the Gouty and Dyspeptic. (*Lancet*, July, p. 7.)
1355. PATERSON.—Sanitas Oil in Psoriasis. (*Ibid.*, July, p. 45.)
1356. THOROWGOOD.—On Doses. (*Med. Times and Gazette*, June, p. 725.)
1357. ATKINSON.—The Treatment of Ulcer of the Stomach. (*Practitioner*, July.)
1358. STEWART.—Cascara Sagrada in Adynamic Constipation. (*Detroit Lancet*, April.)
1359. PAUL.—The Use of Lobelia Inflata. (*Ibid.*)
1360. CREGUY.—Preparations of Aconite. (*Revue de Thérap.*)
1361. CALLEZA.—Salicylate of Soda in Diarrhoea. (*Lyon Méd.*, May 20.)
1362. DESGUIN.—Glycerine in Skin-diseases. (*Med. and Surgical Reports*.)
1363. Castor-oil and Glycerine. (*New York Med. Record*.)

ART. 1342. *Albertoni on Cotoin and Paracotoin.* In a careful and elaborate study on the action of cotoin and paracotoin, Prof. Albertoni comes to the conclusion that, unlike any other known drug, they produce an active dilatation of the abdominal vessels. This active dilatation is caused by no other substance, the action of cotoin being unique. Salvioni has shown that opium increases the blood-supply of the intestine, and Mosso that chloral has the same effect on the kidneys. But the dilatation caused by chloral and opium is not active, but rather paralytic, depending on paralysis of the vessels. Chloral and opium diminish the blood-pressure. That cotoin should cause active dilatation of the abdominal vessels only, and have no influence on others, is in accord with what we know of the influence of other substances. Mosso has drawn attention to this subject; and the author has shown (*Lo Sperimentale*, 1881) that atropine, in certain doses, while it causes dilatation of the peripheral vessels, induces contraction of the cerebral vessels, and that both these actions are contrary and independent. Cotoin is indicated in the diarrhoea which often occurs in the

various forms of mental alienation. It is certain that in the diarrhoea of the insane defective absorption plays a notable part. In simple chronic intestinal catarrh, in the diarrhoea of wasting and cachexia, and in atonic diarrhoea, cotoin gives the best results. In the intestinal catarrh of drunkards, and in that accompanying hepatic cirrhosis, it has not proved efficacious. In the diarrhoea of phthisis it is very valuable, but not if there be ulceration of the intestines. It is very useful, also, in the diarrhoea complicating pellagra; this diarrhoea certainly depends on rheumatism of the intestine, which is often found much atrophied in *post mortem* examination. In the diarrhoea of teething children it is of great service. In cases of ulceration of the intestine, and where there exists a hyperæmic condition of the intestine with liability to hæmorrhage, it is contra-indicated. The author recommends large doses, 15 to 20 centigrammes (2½ to 3 grains). These doses are well borne, and cause no unpleasant symptoms. It may be given in a wafer, or suspended in mucilage, which is best if the stools be frequent, as absorption is easier. His formula is—cotoin, 40 centigrammes (6½ grains); bicarbonate of soda, 1 gramme (15½ grains); water, 100 grammes; glycerine, 20 grammes. The solution, which is made by heat, is not perfect; the bottle must therefore be shaken before the dose is poured out. He also gives it with bismuth in mucilage. It is very useful in the night-sweats of phthisis. In dysentery it has not proved efficacious. Paracoto bark and paracotoin have the same physiological and therapeutical effects as coto bark, but their action is less active. Cotoin has no influence on the peristaltic action of the intestine, nor has it any direct astringent effect; its antiseptic and antimycotic properties are very feeble; it does not prevent the decomposition of the urine, for example. It possesses a special action on the intestinal epithelium, stimulating its nutrition by its power of causing active dilatation of the abdominal vessels. When the function of the epithelium is disturbed, absorption is impeded, and food, &c., remains in the intestine only to be expelled by diarrhoea. In intestinal catarrh epithelium is thrown off in great quantity; the denuded mucous membrane allows matter from the blood to pass as through a filter. Cotoin does not cure all cases of diarrhoea, and is clearly not always indicated; but if the rationale of its action be borne in mind, and it be only given in suitable cases, it is a most valuable remedy in the treatment of diarrhoea.

1343. *Galassi on a Simple and Efficacious Method for the Cure of Obstinate Intermittent Fevers with the Preparations of Bark.*—Dr. Galassi (*Bollett. della Reale Accad. di Med. di Roma*, 1882) recognises the great efficacy of the preparations of bark in the many diverse forms of malarial intermittent fevers, and especially in the pernicious forms; but often, although the febrile accesses cease, relapses, with intervals more or less long, continue to recur sometimes for one or more years. In these cases, he administered quinine in small doses in the intervals of these attacks, but without good results. He then had recourse to the method, first recommended by Bretonneau and afterwards modified by Trousseau, of large doses, sufficient to suppress the febrile attacks, repeated with a certain regularity in the intervals; but with the same want of success. He then resolved to subject these methods to a fresh examination, and recognised that, if on the one hand they rested on the indisputable fact that the attacks of

true miasmatic intermittent fevers are suppressed by a certain dose of quinine administered a little before the attack or in its decline, on the other hand they started from the mere supposition that the same remedy, given in the intervals after the paroxysms have ceased, is able to prevent their return. Indeed, whatever may be the action of quinine, the condition of the organism in the febrile attacks cannot be the same as that of the organism after the cessation of the attacks. To solve the question, he decided to give only the dose necessary to suppress the attacks whenever they occurred, and saw that, after having done this two or three times, the attack became shorter and less severe, and in every case in which he tried this method he had the same result; he therefore ceased to give quinine in the intervals as a prophylactic. Dr. Graves, of Dublin, many years ago recommended this same method of giving quinine in intermittents. Dr. Galassi is convinced that quinine given in the intervals after the attacks have ceased is not only of no use as a prophylactic, but rather is an impediment to the complete cure of the disease, and therefore harmful. He has seen in some cases paralysis of the heart follow the continued and inopportune use of the salts of quinine, and in others, chiefly in old people, vesical catarrh. He notices, however, that in following the simple method of Graves it is very important not to permit the development of several consecutive paroxysms, and that a marked impression must be made before the onset of the cold season, in which the curative action of quinine is much diminished.

1344. *Diani on Trichlorated Phenol.*—The preparation of trichlorated phenol, which results from the mixture of phenic acid with chloride of lime, is a powerful disinfecting agent—Diani says fifteen times more energetic than phenol; it is more active than permanganate of potash, chloride of lime, thymol, salicylate of soda, bromic acid, &c.; it is not an irritant. The salts which are formed from the combination of a base with trichlorated phenol, have the same antiseptic properties. The trichlorophenate of soda has the advantage of being inodorous.

G. D'ARCY ADAMS, M.D.

1345. *Eberman on Ferruginous Koumiss.*—According to the author's experience (*Mediz. Vestnik*, No. 22, 1882), anæmic patients, especially those with tendency to hæmorrhage, rapidly recover their health from the use of ferruginous koumiss. This is prepared by daily adding ordinary doses of lactate of iron to two or three bottles of common koumiss. The iron salt easily dissolves, without changing the taste of the koumiss. This preparation is very well borne, even by patients who cannot take iron administered in pills, powders, &c.

V. IDELSON, M.D.

1346. *Albrecht on the Inhalation of Oxygen in Tuberculosis.*—Dr. Albrecht of Neuchâtel, lecturer on diseases of children in the University of Berne, communicates to the *Deutsche Med. Wochenschr.*, July 18, the results of his experiments with the inhalation of pure oxygen in tuberculosis. He has found that, during the inhalation, no other treatment being employed, and no alteration in diet being made, the patients cease to lose weight, and in some cases even gain. Those patients were chosen for the experiment in whom the bacillus of Koch had been found, and Dr. Albrecht conducted the weighing himself in his own consulting room. He also made experiments on animals; and, after inoculating two sets, he found that those not treated

by inhalation died in four months, while those which had inhaled oxygen were still alive after six months. He hopes that further investigations may be made in the matter by other observers.

1347. *Extractum Piscidia*.—The extractum piscidia, a new remedy, belonging to the *Leguminosae*, and known for some time in America as a hypnotic, has been tried in the Julius hospital with good effect (*Wien. Med. Blätter*, July 19). It has been found of great service in phthisis, causing a diminution of night-sweating and also of cough, without any unpleasant accompanying symptoms. The effect on the sweating was still more marked when atropine was given in conjunction with it, and only after some weeks were the pupils markedly affected. The extract is prepared by macerating 100 parts of the cortex of the root in 1,000 parts of dilute spirit for eight days, then filtering and drying to a powder, of which 0.25 to 0.5 grammes ($\frac{3}{16}$ to $\frac{7}{16}$ grains) is given for a dose.

1348. *Von Ziemssen on Distension of the Large Intestine with Carbonic Acid Gas*.—Professor von Ziemssen employs distension of the large intestine by carbonic acid gas, as a means both of diagnosis and of treatment (*Wien. Med. Blätter*, July 19). The gas is generated by passing into the intestine, through a tube about six inches long, about 20 grammes (300 grains) of bicarbonate of soda and 18 grammes (270 grains) of tartaric acid, which is sufficient to produce 5 litres of gas. The distension serves to indicate the form and position of the intestine, with its relations to neighbouring organs and the condition of its valves. Therapeutically, it is useful to excite peristaltic action, when a somewhat smaller amount may be used, and for relieving malposition and obstruction. It is more efficient and less harmful than distension by means of water or other fluid; and, although the breaking down of adhesions may cause pain, inflammation does not follow, and the only cases in which it is contra-indicated are enteric fever and intestinal tuberculosis.

1349. *Fraentzel on Hydriodate of Hyoscin in Phthisis*.—Dr. Fraentzel recommends (*Wiener Med. Blätter*, July 5) hydriodate of hyoscin in the treatment of the night-sweating of phthisis, in subcutaneous doses of half a milligramme ($\frac{1}{16}$ gr.), or in pill, beginning with the same dose. He does not find it so universally beneficial as atropine, and it sooner exhibits a narcotic action; but he has seen good results from it in cases where atropine has proved useless, or has failed to act after being in use for some time.

1350. *Lindner on Arsenic in Phthisis*.—Dr. Lindner, of Ludwigslust, writes to the *Deutsche Med. Wochensh.* of Aug. 22, giving some of his experiences with regard to arsenic in the treatment of phthisis. He confirms what was written by Herr Kempner in a previous number of the paper, and emphasises the improvement in the subjective symptoms. He has tried the drug in tuberculous affections of other organs, such as the bones and joints, but has not found any benefit to result, unless a slight increase of appetite might be attributed to the treatment.

1351. *Phosphate of Codcin*.—The *Wiener Med. Blätter* for Aug. 16 contains the mention of a new drug, the phosphate of codcin, which has been prepared by Merck, of Darmstadt, under the directions of Professor Hegar, of Freiburg. It is intended for hypodermic injection, for which neither the sulphate nor the chlorate are suitable, being nearly insoluble in water. The new salt is soluble in four parts of

water, and contains 70 per cent. of codcin. It crystallises in four-sided columns, and is similar to morphia in action, with the advantage of having less tendency to excite toxic symptoms. It is peculiarly suitable for sensitive patients.

Alice Ker, M.D.

1352. *Duboué on Ergot in Enteric Fever*.—Dr. Duboué, of Pau, in an essay recently published (Paris, G. Masson, 1883), points out that the prominent symptom in enteric fever is enfeeblement of the muscular tissues. This enfeeblement is present in greater or less degree from the very commencement of the fever, and increases with the progress of the disease. It affects the muscles of the limbs, giving rise to the lassitude which is so marked a feature of this fever. It affects also the muscular fibres of the cardio-vascular system, and in this fact lies its great importance. The heart becomes enfeebled, and the blood-current becomes retarded; and hence arises congestion of the various vital organs with its various more or less serious consequences—imperfect oxygenation of the blood, defective nutritive power, and the like. This being so, the main indication in the treatment of enteric fever consists, according to the author, in combating the muscular enfeeblement and the consequent retardation of the blood-current. The other important indication, viz., the prevention of nutritive disorders, can only be attained by giving attention primarily to the cardio-vascular debility. For the fulfilment of this primary indication various therapeutic agents are useful, viz., the external or internal application of cold water, quinine, creasote, carbolic acid, the preparations of salicylic acid, ergot, &c., all of which act either directly or indirectly as excitomotors. While all of these agents enumerated are valuable for the end in view, the most valuable of all is ergot. Dr. Duboué has given this drug an extended trial, and the results he has attained have satisfied him of its extreme value. He has administered it with the happiest results in cases of enteric fever of the greatest gravity—in some even where the patient seemed in *extremis*. He believes even that this remedy may cut short the fever in its prodromal stage. Dr. Duboué insists on the necessity of the ergot being of good quality. If the drug be bad, as it too often is, it may give rise to sickness and other untoward symptoms; but if it be good no such symptoms occur, and the author has found that patients suffering from enteric fever as a rule show a remarkable tolerance of the pure drug. The mean dose used has been from 1 gramme and 50 centigrammes to 3 grammes (about 23 grains to 46 grains) daily for an adult, and from 40 centigrammes to 1 gramme (about 6 grains to 15½ grains) for children between 6 and 12. The dose must, however, be varied according to the circumstances of each case. The administration of the drug should, according to the advice of the author, be continued until convalescence has been well established. D. MANSON FRASER, M.D.

1353. *Althaus on the Risks of 'Massage'*.—Dr. Althaus, in the *Brit. Med. Jour.*, June 1883, p. 1223, says that it is now time to cry 'hands off!' with regard to the indiscriminate manner in which the 'Weir-Mitchell treatment' more especially is being applied to all sorts of cerebral and spinal cases. Many cases which would be benefited by rest are being treated by means of massage and exercises, so that more harm than good is done to the patient. At page 1307 Dr. Playfair writes to defend himself from being included amongst those who carry on

the 'massage' treatment in an indiscriminate manner, and points out that 'massage' is only a part, and by no means the most important part, of true treatment, the results of which, in well selected cases, are so remarkable, that it is not surprising that it should run the risk of being at times injudiciously and indiscriminately applied.

1354. *Fothergill on Stewed Fruit for the Gouty and Dyspeptic*.—Dr. Milner Fothergill, in the *Lancet*, July 1883, p. 7, recommends the use of stewed fruits in many instances, of gout and dyspepsia. Sugar is undoubtedly objectionable to many, but it is by no means necessary to add sugar to stewed fruit: if the acidity be neutralised by an alkali, little or no sugar is required. Thrifty housewives have long been familiar with the fact, that the addition of a small quantity of the bicarbonate of soda to stewed fruit reduces the acidity, so as to save the necessity for much sugar. If about as much bicarbonate of potash as will lie on a shilling be added to each pound of fruit, it will be found sufficient to neutralise the acidity, and to bring out the natural sweetness. Milk puddings and stewed fruit are excellent for the dyspeptic, the bilious, and the gouty.

1355. *Paterson on Sanitas Oil in Psoriasis*.—Mr. Paterson, in the *Lancet*, July 1883, p. 45, recommends the trial of sanitas oil in chronic cases of psoriasis. The mode of application adopted was in the form of an ointment composed of vaseline, oxide of zinc, and sanitas oil. Mr. Paterson used it in one case only, but wishes other members of the profession to give it a trial.

1356. *Thorowgood on Doses*.—Dr. Thorowgood, in the *Med. Times and Gaz.*, July 1883, p. 725, communicates an article 'on Doses,' and refers to a report lately published by Dr. A. A. Smith, of Bellevue Hospital, on medicinal doses. The author says that the pharmacopœial dose is in many instances too large; for instance, the dose of tincture of aconite is given as from 5 to 15 minims, but the best plan in commencing inflammations is to give one or two minims every two hours. In using arsenic also, Dr. Thorowgood never gives more than three minims of Fowler's solution, or of liquor sodæ arseniatis, three times a day. Small doses of strychnia (one-fiftieth of a grain) are very useful in promoting the restoration of exhausted nerve-function, while larger doses add to the irritation, and eventually increase the exhaustion. Tincture of nuxvomica, taken in doses of one or two minims, fasting, every morning, appears to be useful in the cure of chronic constipation.

1357. *Atkinson on the Treatment of Ulcer of the Stomach*.—Dr. Atkinson, in the *Practitioner*, July 1883, recommends—in cases of chronic gastric ulcer, when the patient is reduced to a weak state by constant vomiting and inability to assimilate nourishment—the following mode of treatment. There should be perfect rest in bed, and, to begin, a teaspoonful of Brand's liquid essence of beef should be given every four hours; a wineglassful of milk and lime-water, in equal proportions, should be taken frequently; and the body is to be rubbed with olive-oil every morning and evening. The beef-essence and milk can be gradually increased, and, as the pain subsides, sponge-cakes, bread, barley-water, and arrowroot, may be allowed, so as by slow degrees to return to ordinary diet. Stimulants of all kinds are to be withheld. The following mixture is also recommended. Eight grains of tartrate of iron, 15 minims of tincture of conium, 15 minims of

tincture of columba, 15 minims of glycerine, in water, daily. No aperients are allowed. After a time, the mixture may be replaced by 15 minims of Bravais' dialysed iron three times a day.

1358. *Stewart on Cascara Sagrada in Adynamic Constipation*.—Dr. Stewart, in the *Detroit Lancet*, April 1883, gives an able article on adynamia. He first treats of vital energy, showing what it is; secondly, he shows how it may be lost; thirdly, he describes some of the conditions brought about by a want of it, such as dyspepsia, diarrhœa, constipation, anemia; and fourth, the treatment of adynamia by some of the more recent additions to the materia medica. One of the chief agents that Dr. Stewart advises in cases of adynamic constipation is cascara sagrada, the bark of rhamnus purshiana. It was introduced by Dr. Bundy, of California, but its present extensive use is due to the enterprise of Messrs. Parke, Davis, & Co., of Detroit, Michigan. This article of Dr. Stewart's would be read with advantage in connection with Mr. Horne's remarks on cascara that occur in the LONDON MEDICAL RECORD, p. 198.

RICHARD NEALE, M.D.
1359. *Paul on the Use of Lobelia Inflata*.—At a recent meeting of the Paris Therapeutical Society (*Rev. de Thér.*), M. C. Paul read a report which had been made on M. Fournier's memoir on the therapeutic properties of lobelia. In asthma, its use is less successful than that of datura; but patients suffering from cardiac dyspnoea resulting from dilatation or mitral lesions find great relief from it; also phthisical patients who have reached the third stage. M. C. Paul, in cases of bronchial catarrh, prescribes from thirty to forty drops of tincture of lobelia inflata and fifty centigrammes ($\frac{7}{8}$ grains) of iodide of potassium.

1360. *Créquy on Preparations of Aconite*.—M. Créquy, at a meeting of the Paris Therapeutical Society (*Rev. de Thér.*), read a letter from M. Oulmont in which he mentioned that, in 1877, he pointed out that the fourth part of a milligramme ($\frac{1}{250}$ of a grain) of nitrate of aconitine is sometimes a poisonous dose; that the action of aconite depends on the origin of the root from which it is prepared. Aconite from the Vosges is much less energetic than that of Dauphny. The tincture is sometimes innocuous, and at others eight or twelve drops are sufficient to kill a large dog. Aconite must evidently be considered as a very variable preparation (especially aconitine) and should be prescribed with great care. M. Constantin Paul is of opinion that a dose ought never to exceed twenty drops of the tincture. W. VIGNAL.

1361. *Calleza on Salicylate of Soda in Diarrhœa*.—In an article (*Lyon Méd.*, May 20) on the classification of the various forms of diarrhœa, and on the indications for the employment of salicylate of soda in this affection, Dr. Calleza concludes as follows. 1. The products of the putrefaction of the contents of the intestinal tube are the sole cause not only of a number of varieties of idiopathic diarrhœa, but also of many forms of secondary diarrhœa, in which the pre-existing disease has engendered a predisposition to decomposition. 2. Salicylate of soda is the most efficacious agent for preventing putrefaction in the intestinal tract, without interfering with the normal digestive processes. It should always be employed when the stools have a putrid odour, especially if this character have been noted from the commencement. 3. Two or three doses, of fifteen grains each daily, are sufficient for the speedy cure of strictly idiopathic

diarrhoea. 4. In the secondary forms of the disease (which are far less common) a trial may be made of the salicylate, rather as a prophylactic measure than with the hope of any marked therapeutic effect. 5. In syphilitic and phthisical diarrhoea, in that accompanying visceral abscess, especially of the liver, and in dysentery, salicylate of soda has produced the best results.

1362. *Desguin on Glycerine in Skin-Diseases.*—M. Desguin, of Antwerp (*Philadelphia Med. and Surg. Reporter*) has given glycerine internally in certain forms of skin-disease with, it is said, marked success, especially in acne punctata and the furunculoid diathesis. He commences with four drachms daily, and gradually increases the dose. He states that the secretion of the cutaneous glands, which is thick and irritating in these diseases, becomes more liquid, and cutaneous irritation is notably lessened. During convalescence from scarlet fever, he believes that it facilitates desquamation.

1363. *Castor-Oil and Glycerine.*—A mixture which is of an agreeable flavour and in which the nauseous smell of the oil is efficiently disguised, can be made thus (*New York Med. Record*):—R. Olei ricini ʒj., glycerini ʒj., tincturae aurantii ℥xx., tincturae senegae ℥v., aquae cinnamonomi q. s. ad ʒ ss. This forms a beautiful emulsion, is easily taken, even by children, and, if administered at bedtime, will produce a gentle motion the following morning.

OBSTETRICS AND GYNÆCOLOGY.

RECENT PAPERS.

1364. WYDER, TH.—The Condition of the Uterine Mucous Membrane during Menstruation. (*Zeitschrift für Geburtshilfe und Gynäkologie*, 1883, Band ix., Heft 1.)

1365. AGATHONOFF.—On Hystero-Trachelorrhaphy. (*Annales de Gynécologie*, July, 1883.)

1366. GUÉNIOU.—Obstruction of the Uterus by a Partition. (*Jour. des Sages Femmes*, Sept. 16, 1883.)

1367. LOMBARD, F. H.—On Puerperal Fever. (*Boston Med. and Surg. Jour.*)

1368. SIMPSON, A. R.—Superinvolution of the Uterus. (*Edinburgh Med. Jour.*, Vol. xxviii., No. 11.)

1369. DE ZOUCHE, ISAIAH.—Notes on a Case of Double Oophorectomy.

1370. SCHAUTA.—Rupture of an Ovarian Cyst in two Consecutive Pregnancies. (*Wiener Med. Blätter*, No. 29, 1882.)

1371. CONSENTINO, G.—On Scraping of the Placental Remains in Abortion. (*Annali di Ostet., Ginecol., e Pediatría*, and *Annali Univ. di Med.*, July 1883.)

1372. FASOLA.—On Rigors following Intra-Uterine Irrigation. (*Annali di Ostet., Ginecol., e Pediatría*, May 1883.)

1373. MANGIAGALLI, L.—A Probable Revival in the Field of Operative Obstetrics. (*Ibid.*, Jan. 1883.)

1374. CUZZI.—The Duration of the Menstrual Hæmorrhage in regard to the Development of the Fetus at Term and to Multiple Pregnancy. (*Rivista Clinica*, and *Annali Univ. di Med.*, July 1883.)

1375. BLANC Y KENET.—On Pregnancy as an Etiological, Hygienic, and Therapeutic Agent in Woman. (*Gazeta Med. Catalana*.)

1376. DONITZ.—A Case of Tubal Pregnancy. (*Berliner Klin. Wochenschrift*, June 18.)

1377. BREUS.—Rupture of the Uterus. (*Wiener Med. Blätter*, June 14.)

1378. FRANKEL.—Displaced Ovaries. (*Deutsche Med. Wochenschrift*, July 25.)

1379. ROTHE.—A Self-retaining Speculum. (*Deutsche Med. Wochenschrift*, June 20.)

1380. SPONDL.—Removal of the Placenta in Abortion. (*Zeitschr. für Geburtsh. und Gynäkol.*, and *Deutsche Med. Wochenschrift*, Aug. 22.)

1381. HEYDER.—Transfusion of Solution of Chloride of Sodium in Post Partum Hæmorrhage. (*Centralbl. für Gynäk.*, and *Wien. Med. Blätter*, June 28.)

1382. FÜRST, C.—The Treatment of Puerperal Eclampsia. (*Wien. Med. Blätter*, July 28.)

1383. HARTIGAN.—The Oxytocic Action of Quinine. (*Brit. Med. Jour.*, June, p. 1064.)

ART. 1364. *Wyder on the Condition of the Uterine Mucous Membrane during Menstruation.*—Dr. Wyder, after referring to the researches of Moericke and De Sinety on the mucous membrane of the uterus, concludes as follows. 1. During menstruation, part of the superficial layer of the mucous membrane disintegrates, whilst the other part remains. This throwing-off of the superficial layer varies in amount at different periods, being at one time complete, at another time very partial. The shed portions can be seen in part well preserved, in part broken up into decomposed detritus. In some cases, small tags of mucous membrane are found in the uterine mucus just as in dysmenorrhœa; but, being small, they do not occasion any dysmenorrhœal symptoms. 2. The throwing-off of the superficial layer of the mucous membrane is a result of the menstrual bleeding, and not a consequence of primary fatty degeneration. The latter is more probably a result of the raising and disintegration of the mucous membrane. 3. The superficial and middle layers of the portion of the mucous membrane which is not thrown off contain their small-celled characters and have no resemblance to the decidua of pregnancy. 4. The degeneration of the superficial epithelium proceeds as much from the glandular, as from the larger or smaller remaining portions of superficial epithelium.

1365. *Agathonoff on Hystero-Trachelorrhaphy.*—Dr. Agathonoff, from observation of fourteen cases of hystero-trachelorrhaphy in the service of Sloviansky, at St. Petersburg, is of opinion that the long preparatory treatment adopted by Emmet is unnecessary. The full benefits from the operation cannot be obtained immediately after the operation, because time is required to cure the anæmia and consecutive nervous symptoms. He states that the cures of the troubles which affect patients with lacerations of the cervix, is obtained almost wholly by the re-union of the lips of the cervix. A long preparatory treatment is only necessary when cystic degeneration of the mucous glands, with intense metritis, is present. The operation, however, carefully performed under such conditions, will fail to be followed by perfect union of the lips. Emmet's operation is the only method by which a cure can be effected in lacerations of the cervix. No other means can replace it with the same success.

1366. *GuénioU on Obstruction of the Uterus by a Partition.*—M. GuénioU was called to a woman who had been in labour for twenty-four hours, without delivery taking place. On examination, he found the cervix largely dilated, but at the same time he perceived that the uterine cavity was closed by a kind of partition (cloison), which he incised. He was nevertheless unable to save the woman, who was exhausted by abundant hæmorrhages and prolonged labour. The necropsy displayed the exist-

ence of a very thick partition, placed transversely across the lower zone of the uterus. The fœtus was putrefied.

1367. *Lombard on Puerperal Fever in Lying-in Hospitals.*—In the correspondence of the *Boston Surg. and Med. Jour.*, Dr. Lombard states that the parts exposed to absorption are the internal surface of the uterus, which, as proved by Friedländer's investigations, is during labour deprived of its epithelium, and for at least three weeks after delivery presents a raw wounded surface; further, the cervical and vaginal walls, the external genitals, and the perineum, whenever the surfaces of these are abraded. In a vast majority of cases the infection is brought from without by the examining finger, catheter, sponge, bed-linen, impregnated with organic material from any source whatsoever in a state of decomposition. Self-infection may take place through the absorption of portions of the placenta or membranes, of coagula, or of lochial discharges, which, retained in utero, have undergone decomposition; also through soft parts, which from pressure during prolonged or instrumental labour have become necrosed. No stronger proof can be brought in support of the correctness of this view of the etiology of puerperal fever, than the marked decrease in the mortality of lying-in women which is followed wherever it has been accepted, and appropriate prophylactic measures against the dreaded disease have been strenuously carried out. During Dr. Lombard's residence in the lying-in hospitals of Vienna, Dresden, and Prague, he has had opportunities of witnessing the effects of the antiseptic system. In 1865 carbolic acid was introduced, and from that time to the present antiseptic precautions have been observed, with constantly increasing vigilance and with correspondingly gratifying results. The mortality in the Vienna Lying-in Hospital from puerperal fever has thus been reduced to 0.75 per cent. In the Prague Lying-in Hospital the mortality has been reduced from an average of 6.67 per cent. to 0.24 per cent. The writer concludes thus. In properly constructed lying-in hospitals, where appropriate precautions are strenuously observed, the mortality can be kept within as favourable limits as in private practice; and further, such hospitals can be thrown open for the purposes of medical instruction without prejudice to the patients. The puerperal fever of private practice is identical with that met with in hospitals, and its occurrence and dissemination are only to be avoided by the observance of the same precautions. Finally, whatever views may be held upon the subject of antiseptics in general, and whether such results as the foregoing be attributed to the germ-destroying properties of carbolic acid and kindred substances, or merely to the increased care and cleanliness which these bring in their train, the fact remains that under no other system have such satisfactory results been obtained, and this of itself should be sufficient reason for continuing to employ the same until something better is devised. [The above results coincide with those obtained in the British Lying-in Hospital in London, since the introduction of antiseptic precautions by Dr. Fancourt Barnes.—*Rep.*]

1368. *Simpson on Superinvolution of the Uterus.*—Professor Simpson calls attention to a condition of some clinical importance, which is not very uncommon. He states that there is seen an atrophic process, similar to that which sets in at the menopause, which affects the uterus long before the ordinary climacteric period. This is superinvolution.

The condition has been designated 'hypotrophy' by Chiarloni, while Frommel has called it 'puerperal atrophy of the uterus.' Simpson, however, retains the term 'superinvolution' as being more scientifically accurate. The variety of undersized uterus thus designated occurs—1. In wasting diseases, as phthisis; 2. In some cases of paraplegia; 3. After removal of the ovaries; 4. Where there have been pelvic inflammations; 5. In diseased conditions of the uterus itself. The most common symptom of superinvolution is amenorrhœa. Sometimes sterility prompts the patient to seek advice. The diagnosis is made by the usual gynecological investigation, and especially by bimanual examination—not merely abdomino-vaginal, but this combined with rectal and sometimes vaginal exploration. In the superinvolved uterus, the walls are not only very thin; they are unusually soft and lacerable, so that the sound is easily pushed through. The treatment is general and local. The general treatment is based upon regard to the constitutional condition and the circumstances under which the superinvolution has been produced. Any drain on the system must be checked, and any constitutional weakness must be combated. The anæmic female must be treated with hæmatics, and those who have mental and nervous derangements with appropriate remedies and remedial measures. If there remain any trace of local inflammatory action, this must be met by hot vaginal douches and counter-irritants; while the patient is made to use tonics of various kinds internally. The local treatment consists in stimulating the uterus, if possible, to redevelopment. Such an attempt is useless where the patient is phthisical or the ovaries are gone. But in some the occasional introduction of a sound or of a dilating bougie has been found useful in re-exciting the menstrual flow, when the patient has taken iron and other emmenagogues for a time, with the effect perhaps of improving the general condition, but not of procuring the uterine discharge. In yet others, the wearing of an intra-uterine stem promotes the development of the uterus. In several instances, Dr. Simpson has witnessed the growth of a superinvolved uterus whilst the patient was wearing the stem-pessary, made partly of zinc and partly of copper. In some, it brought about the restoration of the menstrual flow; and in one patient, in whom the superinvolved uterus was little over two inches, the wearing of the galvanic pessary was followed by such a regeneration of the organ that its functional activity was fully restored, and she subsequently gave birth to a living child.

1369. *De Zouche on a Case of Double Oöphorectomy.*—Dr. de Zouche completes the report on a case of double oöphorectomy which he performed two years ago. (See LONDON MEDICAL RECORD, October 1881, p. 424.) The patient did not show marked improvement until some months after the operation. The pain and hyperæsthesia gradually diminished, the mental depression and thoughts of suicide disappeared, and six months ago she said she was perfectly well. For many months, she has been able to take an active part in the work of the dairy on a farm where she is residing. She milks seven cows morning and evening, makes butter and cheese, washes clothes, &c., and walks to town, a couple of miles, and back again uphill. With regard to menstruation, Dr. de Zouche could never place much reliance on her statements. She said that there

was none for five months, that then it was regular for a few times, and afterwards became irregular as to quantity and time of appearance; but her best friend, the wife of the owner of the farm, tells him that the patient has never menstruated since the operation. Dr. Goodell, of Philadelphia, says these patients frequently state that the menstrual discharge is regular when it is absent, lest any slur should be cast on their womanhood. Within the last couple of years, oöphorectomy has been so frequently performed, and with such success, that it may now be said to take its regular place among the received operations in surgery.

FANCOURT BARNES, M.D.

1370. *Schauta on Rupture of an Ovarian Cyst in two Consecutive Pregnancies.*—In an article containing a case of this kind, the author points out how advanced cystic disease of both ovaries has been found to co-exist with pregnancy, proving that a very small trace of normal parenchyma at the root of an ovarian tumour may still allow successful impregnation. Litzmann has shown by statistical tables that the prognosis of cystic ovarian disease, when discovered in a pregnant woman, is very serious, but this does not accord with the experience of Olshausen or of the author. [British operators look with still less dread on this complication, and do not always consider it justifiable to defer operation till after delivery, ovariectomy during pregnancy being a fairly successful operation, not necessarily followed by abortion.—*Rep.*] In January 1874, the patient on whose case Professor Schauta's paper is founded, a girl aged 19, was examined by Professor Spith, who discovered a tumour in the hypogastrium, which appeared to be a cystic growth of the right ovary, of the size of a man's fist. It had been observed by the patient for three months. On September 2, 1876, she was seen a second time, when in the ninth month of pregnancy. An elastic tumour, of the size of a child's head, was detected pressing down into the pelvic cavity. On September 30, the patient entered a lying-in hospital. She stated that very early on the same day something gave way inside her, and a great quantity of water gushed out of the vagina. A female child was born, and, on careful bimanual palpation of the pelvic organs, something that felt like a collapsed cyst could be detected. The author believed that its contents must have emptied through the Fallopian tube. After the escape of the fluid, the obstetric attendant found that the foetal membranes were still intact, so that no liquor amnii had escaped. By October 9, the cyst was once more as large as a foetal head. On January 21, 1878, the patient came under the care of the author. She was again pregnant, and the ovarian cyst was much larger, pressing into the pelvis. On February 2, labour-pains commenced. The cyst could plainly be felt, but a few hours later it could not be detected on the most careful examination. On the morning of February 3, the foetal membranes ruptured, and the liquor amnii escaped. The patient was safely delivered; no cyst could be felt directly after the expulsion of the foetus, but on the tenth day it was again discovered, and from that date it rapidly began to fill and to present, on palpation, all the characters of an ovarian cyst. On the second occasion, the contents must have escaped into the peritoneal cavity. [It is to be regretted that no subsequent history is recorded.—*Rep.*]

ALBAN DORAN.

1371. *Consentino on Scraping of the Placental Remains in Abortion.*—The importance which the retained foetal appendages, more or less adherent to the internal surface of the uterus in abortion, have in the genesis of consecutive hæmorrhage and septicæmia, is well known. Active intervention is now recognised as necessary. The author (*Annali di Ostetricia, Ginecol., e Pediatria, and Annali Univ. di Med.*) says that in every abortion all or part of the decidual membrane remains adherent, and may give rise to repeated and prolonged metrorrhagia. In the process of exfoliation of this membrane, profuse hæmorrhages may occur. Grave, acute, and chronic diseases, or a series of abortions, arise from the decomposition and slow expulsion of the placental remains. The natural process of elimination of these remains is united with many dangers if art do not intervene. Expectant and symptomatic treatment is insufficient to promote the expulsion of the body remaining in the uterus, and hence is not free from danger. As repeated metrorrhagia occurs, the cavity of the uterus must be freed from all remains as soon as possible; the best means for this end is scraping the uterine wall with the spoon. This method ought to be carried out whenever the placenta is retained, and does no more harm than the common endo-uterine injection.

1372. *Fasola on Rigors following Intra-uterine Irrigation.*—The author (*Annali di Ostetricia, Ginecol., e Pediatria*, May 1883) examines one of the accidents of intra-uterine irrigation in the puerperal state—rigors. This accident is not rare, since it was observed 24 times in 200 in which irrigation was used in the clinic of Turin, in the scholastic year 1881-82. Of these observations he reports eight, those, that is, in which the appearance of the rigor after irrigation was marked and characteristic. He draws the following conclusions. 1. Disinfectant intra-uterine irrigations practised in the puerperal processes of septic endometritis, with offensive lochia, &c., are frequently followed by rigors. 2. The rigor is so much the less intense as the offensiveness of the lochia is less, and the earlier the local treatment is begun; and in these cases it frequently only amounts to a sense of chilliness rather than to a decided rigor. 3. It generally appears after the first irrigations, often after the evening irrigation; it is not always repeated. 4. The rigor is followed by elevation of temperature; but this is of short duration, and is followed by a fall, sometimes great in slight cases, when the temperature did not exceed 38°·5 Cent. (101°·3 Fahr.) before the irrigation, not uncommonly to the normal. 5. The rigor and the rise of temperature never gave rise to further alarming symptoms. He attributes the rigor to the accidental absorption of septic materials, favoured or promoted by the mechanical action of the irrigation, removal of thrombi, laceration of vessels, &c. He does not consider that it in any way is to be considered as a reason why endo-uterine irrigation should be discontinued.

1373. *Mangiagalli on a Probable Revival in the Field of Operative Obstetrics.*—This formed the subject of the introductory address to the course of Obstetrics for the year 1882-83 in the University of Sassari. (*Annali di Ostetricia, Ginecologia, e Pediatria*, Jan. 1883.) Symphysiotomy is the operation spoken of, and Prof. Mangiagalli thinks that it will again come into vogue, since it has a well-defined indication, and with modern antiseptic precautions it

deserves a new clinical trial. Old statistics are not of much value, and cannot be used to form a judgment of the value of the operation, which was performed when the degree of pelvic stenosis was so great that symphysiotomy could not give the results expected of it, while on the other hand it was frequently performed without sufficient clinical discretion, in cases in which there was really no occasion for it. The recent cases of the Neapolitan school, in which the operators confined themselves to the limits imposed by rational indications, gave results which seriously call for the attention of those obstetricians not held in bondage by preconceived ideas. The author would fix the limit for symphysiotomy between 67 and 70 millimètres. With strict antiseptic precautions, he expects better results than those hitherto obtained, though the results of the more recent operations of the Neapolitan school are very encouraging. From Jan. 1, 1868, to Sept. 26, 1872, 24 symphysiotomies were performed; 6 mothers died, which represent a maternal mortality of 25 per cent.; while from Oct. 1, 1872, to Dec. 5, 1880, in 22 symphysiotomies only 3 mothers died, or a maternal mortality of 13.63 per cent. The mortality of the children was in the first series 20 per cent., in the second 17.39 per cent. Such results are more striking when one compares them with the results of other operations in pelvic stenosis. The clinical observations of the author, made on a vast scale in the Maternità of Milan, bring the conviction that within the limit stated our art is defective, and that to attempt the application of the forceps or version where one is beforehand certain of failure, trusting to an exceptional success, which too often the nature of things refuses us, or to subject the still living fetus to craniotomy, sacrificing it to the mother, or to practise Caesarean section, and thus often to sacrifice the mother to the child, does not bring us near that ideal perfection to which the aspirations of our art should tend. What the results obtained by all other operations in the field indicated of pelvic stenosis have been for a period of ten years the author shows, giving statistics. From Jan. 1873 to Nov. 1882, in the hospital of S. Caterina, 50 women at full time had pelvic stenosis, varying from 67 to 80 millimètres in the conjugate diameter; the mortality of the children was 81.78 per cent., and the mortality of the mothers 14.28 per cent., with an inclusive mortality of 48.05 per cent. He concludes with an eloquent appeal to obstetricians to remove symphysiotomy from the ostracism to which it is condemned, and to subject it to a fresh trial.

1374. *Cuzzi on the Duration of the Menstrual Hemorrhage in relation to the Development of the Fetus at Term, and to Multiple Pregnancy.*—The title of this work (*Rivista Clinica and Annali Univ. di Med.*, July 1883) clearly indicates its scope, and the author seeks to establish his conclusions on the basis of much statistical material collected in the clinics of Modena, Milan, and Turin. He was led to this research by the idea that by the amenorrhœa of pregnancy a so much greater quantity of maternal nourishment was retained for the benefit of the fetus, as the sanguineous loss was greater in menstruation. Not being able to determine exactly the quantity lost at each period, he took its duration as a guide, which, considering the number of his observations, may be regarded as more or less equivalent. As to a longer duration of the menstrual hemorrhage, a corresponding ovarian activity can be supposed; so also the hypothesis may be

justified of a more easy rupture of more ovisacs, and hence a greater probability of multiple pregnancy. From the analysis of very numerous observations, Professor Cuzzi thinks himself justified in formulating the following conclusions. 1. The weight and length of the fetus at term are in direct relation with the number of days which menstruation occupied. The longer the usual period of menstruation, the heavier and larger the fetus. 2. There is a direct relation between multiple pregnancy and the duration of the menstrual period. That is, multiple pregnancy is most frequent in women in whom the period is long and the loss free.

1375. *Blanc y Renet on Pregnancy as an Etiological, Hygienic, and Therapeutic Agent in Women.*—In the *Gaceta Med. Catalana*, Dr. Blanc y Renet publishes an article on this subject. He sums up thus. 1. The reproductive organs of woman, by their conditions of movability and vasculority, are constantly influenced by position or attitude. 2. Any other but the normal angle of 54° to 60° , when standing, is dangerous. Hence it is dangerous to maintain the position for long without taking exercise. 3. The prolonged sitting position is also harmful; as is also reclining without taking exercise, since the pelvis is inclined at a bad angle. 4. To re-establish the equilibrium of the pelvic circulation which may have been disturbed during the day, at night the woman must be in the lateral position, or change from side to side; the bed ought to be flat and hard. 5. The misplacement of the pelvic organs, produced by an improper attitude, must be treated by another position, or by attitude in which the centre of gravity of the misplaced viscera inclines to the point opposite the misplacement. 6. The affections of the circulation of the female organs of reproduction (hyperæmia, varices, hemorrhages, cedema, excessive secretion, catarrh, hyperæsthesia) which can be comprehended in the widest acceptance of hyperæmia, produced or not by upright or inclined positions, must be treated by the horizontal position with the pelvis elevated. This position he calls the antihyperæmic for the pelvic organs.

G. D'ARCY ADAMS, M.D.

1376. *Donitz on a Case of Tubal Pregnancy.*—Dr. Donitz, of Saga, Japan (*Berliner Klin. Wochens.*, June 18), describes the following case. On Dec. 20, 1882, a woman came under his care. She had not borne children, and for sixteen months had not menstruated. She had lately felt, on the right side of the abdomen, a tumour in which she was sensible of movement. Five months previously she had experienced a profuse discharge of blood; after which, the swelling had somewhat decreased, but had become painful. The tumour was most distinct on the right side, extending as high as the umbilicus. A clear watery discharge from the vagina existed, containing yellowish flocculi or strands, which consisted of fat, cholesterine, crystals of fatty acids, and fragments of striped muscular fibres. A small quantity of milk was secreted in the breasts. A tubal pregnancy was diagnosed. The severe pain and the risk of perforation rendered the performance of an operation imperative, the successful result of which was rendered the more probable by the healthy appearance of the patient. An incision from the umbilicus to the pubes was followed by the protrusion of the tumour to the surface. The omentum was adherent anteriorly to the extent of two inches, but was easily separated by the hand; posteriorly, however, the adhesions were

firmer and connected with the right kidney. As it was being detached, the amnion was torn, and gave exit into the abdominal cavity to a sebaceous mass mixed with hair. As the tumour was now free, it could be brought forward, and the further escape of this material prevented. After the opening of the sac and removal of the foetus, the tumour was readily raised. The broad ligament was stitched to the tube at three different points; and the tumour with the end of the tube and ovary was removed. Hæmorrhage from the omental vessels was arrested by the thermo-cautery; the parts were washed with a solution of carbolic acid, and the wound in the abdominal walls was closed. A drainage-tube was inserted in the lower angle of the wound; and the stitches were dressed with naphthalin. The peripheral end of the tube and the ovary were healthy. No trace of placenta was found. The foetus appeared to be of about seven months. Recovery in this case was rapid. The author relates this case on account of the diagnostic value of the observation of muscular fibres in the vaginal discharge. Dr. Donitz adds that when the litter, on which the patient had been brought three miles, returned empty, it was amidst the cheers of a large crowd who had expected nothing less than that it would have to convey away a corpse. The natives firmly believed that the woman had a snake, or a devil, in her belly, which could only be cast out at the cost of her life.

W. B. KESTEVEN, M.D.

1377. *Bruss on Rupture of the Uterus*.—Dr. Carl Bruss, assistant to Professor Braun, of Vienna, relates (*Wiener Med. Blätter*, June 14) a case of cured rupture of the uterus, which occurred in the hospital there. The patient was brought in to be confined of her fourth child, and gave a history of great suffering in previous labours, the presentation having always been either transverse or breech, and the placenta each time adherent. On account of hæmorrhage the membranes were ruptured, while the os was about the size of a crown-piece, and a presenting foot pulled down so as to plug the opening. No more bleeding followed, and the labour was brought to an end by extraction, in about twelve hours. In attempting to detach the placenta, an opening in the left cervical wall was discovered, through which the posterior surface of the uterus could be felt. The adhesion between the placenta and the uterine wall was so intimate that it could not be entirely removed; but convalescence was proceeding favourably, when a fresh attack of hæmorrhage on the fourth day proved fatal. The opening in the cervical wall had rounded and cicatrized edges, and was of such an appearance as to warrant the belief that it had occurred during a previous labour, probably the last one. A fresh rent, about one centimetre in length, involved the site of the placenta, and implicated a large vessel, the source of the fatal hæmorrhage. The opening led into a collapsed and empty cavity, between the folds of the broad ligament.

1378. *Fränkel on Displaced Ovaries*.—In the sitting of the Hamburg Society of Physicians on Nov. 28, 1882 (*Deutsche Med. Wochens.*, July 25) Herr Fränkel showed two preparations of displaced ovaries. The first was from a woman, aged 37, who died of carcinoma of the axillary glands, where the right ovary was missing from the end of the Fallopian tube, and a cyst containing cholesterine and hair was found attached to the great omentum and the cocum. The second was from a child a year old, who died of rachitis and bronchopneumonia.

The left ovary was found free in the pouch of Douglas, no explanation of the occurrence being suggested by any of the appearances found.

1379. *Rothe on a Self-retaining Speculum*.—Dr. Rothe, of Altenburg, describes and figures (*Deutsche Med. Wochens.*, June 20) a new self-retaining speculum which he has devised. It consists of a blade like a Sims' speculum, along the shaft of which works a stem carrying an oblong loop of wire which acts as a depressor, and which can be adjusted to any distance from the duck-bill by means of a screw. Dr. Rothe has obtained a clearer view of the cervix and vagina by means of this instrument unassisted, than with a Sims' speculum and depressor combined.

1380. *Spöndly on Removal of the Placenta in Abortion*.—Dr. Spöndly states to the *Zeitschr. für Geburtshilfe und Gynäkologie* (*Deutsche Med. Wochens.*, Aug. 22) his experience that it is best in cases of abortion to resort at once to extraction of the placenta in cases where it is not immediately expelled spontaneously. As the cervix becomes impervious to the finger in one or two hours after the birth of the foetus, removal should be effected at once, under chloroform.

1381. *Heyder on Transfusion of Solution of Chloride of Sodium in Post Partum Hæmorrhage*.—The *Wien. Med. Blätter* of June 28 quotes from the *Centralbl. für Gynäkologie* another successful case of transfusion of chloride of sodium solution in post partum hæmorrhage, contributed to that paper by Dr. Heyder. The patient was a multipara, in her eighth pregnancy, from whom the adherent placenta was partially removed by the attending midwife, causing an amount of flooding which necessitated the calling in of Dr. Heyder three hours after the expulsion of the child. As the manual removal of the remainder of the placenta had only a momentary effect in restraining the hæmorrhage, transfusion was determined on, and 450 grammes (15 oz.) of the usual 6 per cent. solution of chloride of sodium were injected into the median vein. The result was the immediate diminution in frequency and increase in strength of the pulse, and the restoring to consciousness of the patient, who remembered nothing subsequent to the partial removal of the placenta. The course of the convalescence was normal, with the exception of a perimetritis which appeared on the tenth day, and soon passed off.

1382. *First on the Treatment of Puerperal Eclampsia*.—Dr. Camillo Fürst, assistant to Professor Braun, communicates to the *Wien. Med. Blätter* for July 26 some therapeutical notes from his obstetric clinic in Vienna. In the treatment of eclampsia the following rules are observed. 1. For the prevention of fresh attacks, chloral-hydrate is given in a dose of 2 grammes (30 grains) by the rectum immediately after each fit, and if the greater part be returned, it may be repeated to the extent of 10 to 12 grammes (150 to 180 grains) in twenty-four hours. 2. If fits occur during the birth, it must be terminated artificially. 3. If the birth be over or not yet begun, diaphoresis is induced by hot baths, beginning at 38° to 40° C. (100° to 104° F.), and gradually raised by the addition of hot water to 42° or 43° C. (107° to 111° F.). After half an hour of this bath, or sooner if much sweating of the face be induced, the patient is packed in warm flannels for two or three hours, from which she is freed gradually. This is repeated daily until the oedema disappears; and the treatment

has been specially useful in eclampsia occurring during pregnancy.

ALICE KER, M.D.

1383. *Hartigan on the Oxytoxic Action of Quinine.* Mr. Hartigan, in the *Brit. Med. Jour.*, June 1883, refers to an article by Dr. Macleod, of Shanghai, on the 'Problematic Oxytoxic Action of Quinine' in the *Journal* of February 24, and records that in three cases he had on several occasions to discontinue the use of quinine, because it brought on 'labour pains,' even in small doses of three to five grains. One case came under the author's notice, where abortion was produced by a dose of ten grains of quinine. This action of the drug is known to the Chinese, who take it for the purpose of producing abortion, following its use by copious draughts of tea. Quinine certainly in some cases increases the menstrual flow. [Many observers have written upon this point; and while some assert that quinine produces abortion, others deny it altogether, Dr. Macleod leaning to the view that the drug prevents abortion in some cases; and doubtless, in the reporter's opinion, formed after a very extensive experience in Java, the home of malaria, Dr. Macleod has very good grounds for holding his view, because it is the malarious fever, for which quinine is often given, that leads to abortion, and if this fever be checked by the timely use of the drug, such abortion is avoided, while, if given too late, the disease, and not the remedy, is the cause of the disaster.—Vide *Medical Digest*, sect. 401 : 6.—*Rep.*]

RICHARD NEALE, M.D.

TOXICOLOGY AND MEDICAL JURISPRUDENCE.

RECENT PAPERS.

1384. WARREN.—The *Abrus Precatorius*. (*Indian Med. Gaz.*, Dec. 1882.)

1385. COPPOLA, F.—Ptomaines. (*Gazz. Chimica Ital.*, Vol. xii., p. 511; *Jour. of Chemical Society*, 1883, p. 522.)

1386. MASCHKA.—On Sulphate of Copper. (*Vierteljahrsschr. für Gerichtl. Med.*, Band xxxix., p. 55.)

1387. KOTH.—On Aconite. (*Vierteljahrsschr. für Gerichtl. Med.*, Band xxxix., p. 76.)

1388. KRATZER.—On Strychnine. (*Philadelphia Med. and Surg. Reporter*, 1882, p. 583.)

1389. MACREADY.—On Strychnine. (*Edinburgh Med. and Surg. Jour.*, 1883, p. 757.)

1390. KORNFIELD.—Poisoning by Bromine. (*Friedreich's Blätter für Gerichtl. Med.*, 1883, p. 228.)

1391. BAYER.—On Cervico-Vaginal Rents in their Forensic Aspects. (*Arch. für Gynäk.*, Band xli., Heft 1.)

1392. UNGAR.—On Atelectasis. (*Vierteljahrsschr. für Gerichtl. Med.*, Band xxxix., p. 12.)

1393. McRENDIE.—Antidotes for Strychnine. (*Proceedings of N.W. Provinces Branch of Brit. Med. Association*, 1883, p. 3.)

1394. GALIPE.—Copper in the Cereals. (*Ann. d'Hygiène*, 1883, pp. 122, 279.)

1395. JESSOP, C. M.—Poisoning by Tartar Emetic. (*Brit. Med. Jour.*, July, p. 14.)

1396. BRUNTON.—Arsenical Poisoning by Wall-papers. (*Idid.*, June, p. 1218.)

1397. MOSSO AND GUARESCHI.—Researches on the Substances Extracted from Animal Organs Fresh and in a state of Putrefaction. (*Atti della Reale Accad. delle Scienze di Torino*, 1882.)

1398. GIORGIERI, F.—Two Cases of Lathyrism observed in the Medical Clinic of the Royal University of Parma. (*Annali Univers. di Medicina*, April 1883.)

1399. GUARESCHI.—Localisation of Arsenic in the Organism in a Case of Poisoning. (*Rivista di Chimica Med. e Farm.*, Vol. i., p. 17.)

1400. BOHN.—Poisoning by Chlorate of Potash. (*Deutsche Med. Wochenschr.*, Aug. 15.)

ART. 1384. *Warden on Abrus Precatorius*.—Professor C. J. H. Warden (*Indian Med. Gaz.*, Dec. 1882), has investigated the poisonous properties of the seeds of this, the rati plant, which is much used in India in the destruction of cattle. For this purpose the seeds, which are almost inert when introduced into the stomach, are pounded, moistened with a liquid, and shaped into needles—'suis'—and, when dry, forced beneath the skin of cattle. The 'Chamar,' or skinner caste, appear to be the only class who adopt this mode of poisoning, and their object is to obtain the skins. Unless suspicion be aroused, and the skin of the animal very carefully inspected, the minute puncture caused by the spike is likely to escape detection. The *abrus precatorius* belongs to the natural order leguminosae, and is familiarly known as the Indian liquorice plant. The seeds are used as an external application in ophthalmia, and also for hæmorrhoids. When used subcutaneously, as in suis poisoning, there ensue considerable local tumefaction of the part to which the poison is applied, a lethargic condition of the animal, staggering gait, and death. Occasionally suis wounds have proved fatal in the human subject. Professor Warden has obtained from the rati seeds two principles—a proteid body having properties analogous to those of emulsion, and a leguminous matter like amygdalin. A temperature of 100° C. destroys the activity of the seeds, apparently by coagulating the proteid body, in the same way as boiling water, when added to a mixture of emulsion and amygdalin, prevents the formation of hydrocyanic acid, by coagulating the emulsion. The proteid and leguminous matter present in the rati seeds, when introduced beneath the tissues, probably give rise to certain products, the result of a quasi-fermentative action, inducing changes in the blood incompatible with life.

1385. *Coppola on Ptomaines*.—F. Coppola (*Gazz. Chim. Ital.*, vol. xii., p. 511; *Jour. of Chem. Society*, 1883, p. 522) has investigated the genesis of the cadaveric alkaloids. These bases were originally regarded by Selmi, and afterwards by Schwanert, as exclusively products of cadaveric putrefaction. Selmi, however, afterwards modified his opinion, and admitted that ptomaines might be produced during life by pathological alterations, and this was confirmed by Spica. Paterno and Spica, and also Gautier, subsequently showed that reactions similar to those exhibited by the ptomaines might be obtained from substances procured from normal blood, egg, albumen, normal urine, and other animal fluids. Coppola has made a series of experiments on the physiological action of bases extracted from the blood of a healthy dog; and he concludes that alkaloids extracted from healthy animal fluids, which have undergone no putrefactive alteration, may exhibit highly poisonous properties, and that the albuminoids are capable of undergoing changes giving rise to the formation of poisonous bases. It is even surmised that during the extraction of alkaloids by Dragendorff's process albuminoid substances may undergo transformations, giving rise to poisonous ptomaines.

1386. *Maschka on Sulphate of Copper*.—Professor Maschka (*Vierteljahrsschr. für Gerichtl. Med.*, Band xxxix., p. 55) relates a fatal suicidal case of poisoning by blue vitriol. Death occurred in ten hours. Two-pennyworth of the poison was taken. The symptoms were vomiting, watery diarrhoea, cramps, and finally loss of consciousness. Some congestion, and a few ecchymosed patches, were noted on the mucous surface of the stomach.

1387. *Roth on Aconite*.—Dr. Emmanuel Roth communicates an interesting case of fatal poisoning by half a teaspoonful of tincture of aconite (*Vierteljahrsschr. für Gerichtl. Med.*, Band xxxix., p. 76). Death occurred in two hours, consciousness remaining intact almost till the end of life.

1388. *Kratter on Strychnine*.—Dr. Kratter (*Philadelphia Med. and Surg. Reporter*, 1882, p. 583) has determined the manner in which strychnine is excreted from the body, and has ascertained that the alkaloid is not decomposed in the liver. Strychnine, no matter by what channel introduced into the body, is rapidly absorbed and excreted unaltered by the urine. The excretion begins within the first hour after the ingestion of the drug, and is ended within forty-eight hours, when the last trace disappears from the urine. An accumulative action he explains by the fact that a new irritant acts on the nerve-centres, the former irritation of which has not totally ceased, and equilibrium not having been re-established before another dose disturbs it anew.

1389. *Macredy on Strychnine*.—Mr. Macredy (*Edinburgh Med. and Surg. Jour.*, 1883, p. 757) reports an instructive case of poisoning by a grain and a half of strychnine, followed by two ounces of laudanum. Symptoms did not appear till after the lapse of eight hours. Four hours later, chloral was administered. In five hours from their accession, the symptoms had attained their maximum of intensity, and five hours after this they had entirely disappeared.

1390. *Kornfeld on Poisoning by Bromine*.—Dr. Kornfeld relates (*Friedrich's Blätter für Gerichtl. Med.*, 1883, p. 228) an interesting fatal case of the poisoning of a child, aged 1½ years, by the inhalation of the vapour of bromine. The child died on the sixth day, after suffering from suppressed voice and respiratory troubles, followed by gastric disturbances, and finally various cerebral symptoms. At the necropsy the skin of the cheeks and neck, where the vapours had come into contact with the parts, had a yellow appearance, and a peculiar parchment-like feel. Bromine was detected on the skin, and also on the clothing of the child during life.

1391. *Bayer on Cervico-Vaginal Rents in their Forensic Aspects*.—Dr. G. Bayer (*Arch. für Gynäk.*, Band xxi., Heft 1) draws attention to rents of the cervix uteri and vagina, without extension into the peritoneum, becoming of importance forensically. He adduces two cases in which such rents occurred: one in turning in a case of placenta prævia; the other as the result of a protracted first stage of labour.

1392. *Ungar on Atelectasis*.—Dr. Emil Ungar (*Vierteljahrsschr. für Gerichtl. Med.*, Band xxxix., p. 12) asserts, as the results of his experiments, that both lungs of the new-born child may, after complete inflation, become completely atelectatic, and that this change is accompanied by a diminution of the capacity of the thorax, and that the space previously occupied by the air in the lungs is not subsequently filled with other gases.

1393. *McReddie on Antidotes for Strychnine*.—Dr. G. D. McReddie (*Proceedings of the North-West Provinces Branch of Brit. Med. Assoc.*, 1883, p. 3), after injecting strychnine into dogs, tried the effects of antidotes on the animals, using inhalations of chloroform and amyl-nitrite, with and without eserine and atropine. He found that none of these agents prevented a fatal result, and that their action was too slow to arrest the strychnine convulsions.

1394. *Galippe on Copper in the Cereals*.—M. Galippe, who is well known as an ardent supporter of the view that salts of copper are non-toxic, professes to give (*Ann. d'Hyg.*, 1883, pp. 122 and 279) an historical summary of the question as to the vexed presence of copper in vegetable organisms; but, singularly enough, he ignores all that has been done to settle the question outside his own country and Belgium. He finds habitually traces of copper in the cereals, 0.0005 to 0.001 per cent, the means being 0.0014 per cent. in the bran, and 0.00084 per cent. in the flour of wheat. He finds the metal also to be present in all the vegetable articles of dietary analysed by him. M. Galippe is of opinion that it is this small amount of copper normally, or at all events habitually, present in flour which misled, as he asserts, Kuhlmann into the supposition that copper sulphate has been used as a substitute for alum in bread-making. In the discussion which followed the reading of M. Galippe's paper, M. Pabot pointed out fallacies connected with the detection of minute quantities of copper, and tried to discredit M. Galippe's analyses.

T. STEVENSON, M.D.

1395. *Jessop on Poisoning from Tartar Emetic*.—Mr. C. M. Jessop, in the *Brit. Med. Jour.*, July 1883, p. 14, records a case of a woman, aged 31, who mixed a quarter of an ounce of a powder labelled 'cream of tartar' with treacle and sulphur, and took about two teaspoonfuls of the mixture as a medicine. In a few minutes she was actively purged, and violent vomiting came on, followed by cold sweats, shiverings, pricking sensations, and numbness. Laudanum and ether were given to counteract the shivering, also some brandy. For some days the patient was excessively weak, and her stomach was sore, and sensitive to food or liquid. The powder was examined, and found to be tartar emetic; the patient was supposed to have taken about 7½ grains.

1396. *Brunton on Arsenical Poisoning by Wall-Papers*.—Dr. Lauder Brunton, in the *Brit. Med. Jour.*, June 1883, p. 1218, reports on the injurious effects arising from arsenical wall-papers and other articles containing arsenic. The author points out that all persons are not equally susceptible to the injurious action of arsenic, and records cases where all the members of a family have lived enjoying good health during the time they occupied the house, whereas another family, shortly after their entrance, began to suffer from symptoms of arsenical poisoning. The wall-paper was examined, and found to contain arsenic. On its removal, all the symptoms ceased. One member of a family may be more sensitive than the others, and may suffer while the rest escape. The symptoms of arsenical poisoning are often confounded with those of irritation of the intestinal or respiratory tracts, or of the conjunctiva, and the true cause often overlooked. Arsenic given as a medicine produces no injurious action, in quantities which are probably larger than those which enter the bodies of persons exposed to the action of

arsenical papers. The reason of this may be twofold; either it may be that the arsenic given off from the paper is absorbed by the lungs instead of the stomach, or that the arsenic is given off from the paper in a specially poisonous form. A report is also given of the test employed by the National Health Society to detect arsenic in curtains, carpets, &c. A list of articles in which arsenical pigments, dyes, or mordants are used, is also given. It is recommended that Reinsch's test should be universally adopted by the general public. Any professed chemist for a small fee ought to be prepared to examine papers or textures, and to state whether they contain arsenic or not.

RICHARD NEALE, M.D.

1397. *Mosso and Guareschi on the Substances extracted from Animal Organs, fresh and in a state of Putrefaction.*—From brains in the normal state the authors (*Atti della Reale Accademia delle Scienze di Torino*, 1882), have extracted small quantities of ammonia, trimethylamine, and alkaloïds; from brains in a state of putrefaction they obtained a very notable quantity of ammonia, trimethylamine, and extracts which manifestly furnished the reactions of the alkaloïds. All these substances produced in frogs phenomena of poisoning analogous to those of curara.

1398. *Giorgieri on Two Cases of Lathyrism.*—Two youths, brothers, were admitted into the medical clinic of the Royal University of Parma, said to be suffering from locomotor ataxy, from chronic myelitis. Professor Giorgieri was led to doubt the accuracy of this diagnosis, from their age, their good bodily health, and their careful but stumbling gait. A careful inquiry into their history convinced him that the disease from which both were suffering was due to the prolonged use of bread made with the flour of the vetch (*Lathyrus Sativus* and *L. Cicera*, Linn.). The following is briefly the history of the two cases. 1. L. A., aged 17, had an excellent personal and family history; for a year past his diet had chiefly consisted of bread made with the flour of the vetch. At times he had also eaten the vetches green, causing nausea, vomiting, giddiness, singing in the ears, stupidity, &c. These symptoms gradually increased, and he noticed a tremor of the upper extremities, which became exaggerated on taking up or putting down anything. He gradually lost power in his legs, which felt heavy, with vague pains, formication, and sense of cold. When admitted, he was not able to stand without the support of a stick. On inspection the legs were not wasted, but the abductors and flexors felt hard and contracted. His gait was uncertain and staggering, the right leg being rather the stronger; he lifted his feet with difficulty, often dragged them, and put them down suddenly and forcibly, as if they were heavy weights. The floor, he said, felt irregular; and he was obliged to keep his eyes fixed on the ground to guide his feet. He rested all his weight on a stick. With his eyes shut his movements were still worse, and he felt as if standing between two abysses. Without his shoes, too, he walked worse. In bed, he could not sit up without helping himself up with his arms, nor move his toes, nor flex or extend the foot on the leg, nor the leg on the thigh, nor that on the pelvis completely. Sitting in a chair, he could not extend his legs nor cross them. The knee-tendon reflex was exaggerated; voluntary movement of the abductors and adductors, and rotation of the foot were impossible. Tactile, thermic, dolo-

rific and electrical sensibility were perfect. The temperature was normal. Nothing could be seen in the blood at first or after cultivation. The urine was normal; there was a slight increase of urea. 2. In M. L. T., aged 11, brother of the above, the symptoms were much the same, but less advanced. In the movements of the lower limbs, it seemed that to the execution of the will was opposed the spasm of the muscles antagonistic to those which should execute the movement. The tendon reflexes were exaggerated in both cases. In what organs is the lesion localised? This is unknown. Is it degeneration of the muscular film (Cantani), or central lesion of the cord (Brunelli), spastic paraplegia? Many observers deny the dependence of spastic paraplegia on the lateral columns of the cord (Leyden and Hughlings Jackson.) Targioni-Tozzetti described a true epidemic of paralysis of the lower limbs in Tuscany in the last century, due to the use of lathyrus during a time of scarcity. Cases are also known in animals, horses (Rayer), and pigs (Ferraresi). Lathyrus seems to affect chiefly adolescents, the very young and old escaping its noxious influence. The toxic principle is not yet isolated. That the symptoms are due to such principle seems certain. The general nutrition of both these youths had not suffered. Treatment is not successful, and there is no recorded case of perfect recovery. In these cases the constant and interrupted currents were perseveringly tried, the cold douche also, and generous diet. After three months the improvement was very slight, and they were discharged.

1399. *Guareschi on Localisation of Arsenic in the Organism in a Case of Poisoning.*—Authors yet differ as to the organs in which arsenic chiefly accumulates. Sciosaboff thinks most is to be found in the nervous system; Ludwig, on the other hand, found only traces in the brain, and much more in the kidneys, liver, and muscles. Guareschi finds that arsenic is principally accumulated in the liver, but is found in notable amount in the lungs and kidneys, in very small quantity in the muscles, and only traces in the brain.

G. D'ARCY ADAMS, M.D.

1400. *Bohn on Poisoning by Chlorate of Potash.*—Professor Bohn, of Königsberg, reports to the *Deutsche Med. Wochens.*, Aug. 15, a case of poisoning by chlorate of potash, which had been prescribed on account of vesical catarrh following gonorrhœa. The patient, a man aged 49, was ordered to buy some of the salt at a druggist's, to dissolve a teaspoonful in a tumbler of water, and to take a tablespoonful of the solution every two hours. Instead of this, he was afterwards found to have dissolved a teaspoonful of the salt every two hours in a glass of water, and to have drunk the whole quantity each time, so that he had taken 60 grammes (2 oz.) in thirty-six hours. When seen by Dr. Bohn, he was pale and collapsed, in a condition very suggestive of cholera, suffering greatly from pain over the stomach, and with suppression of urine. Soon afterwards, a feeling of numbness and formication in the hands and feet came on, causing great distress and restlessness. The small quantity of urine, about half an ounce, passed in twenty-four hours, contained a few blood-corpuses, and was full of small brownish bodies and cylinders. Under the spectroscope, it showed the absorption-band of methæmoglobin. Death occurred within two days, preceded by increasing collapse and some amount of icterus. The most distinctive appearance found at the necropsy was the brown colour of the spleen, liver, and kidneys, which did not pass

off on exposure to the air, but persisted after some days. The uriferous tubules of the kidneys were found to be filled with brownish masses, formed of bodies resembling red blood-corpuscles, but without their biconcavity. There was a stagnation of blood in the spleen and the medulla of the bones, and the blood-corpuscles were changed in character both there and in the heart, being shrunken and altered in contour. This case reminded Dr. Bohn of others, in which death was supposed to have occurred from diphtheria. He attends the histories of two, in each of which large doses of chlorate of potash were given. He thinks the drug must no longer be sold as harmless, or be given in unlimited quantities into unprofessional hands.

Alice Ker, M.D.

DISEASES OF THE NERVOUS SYSTEM.

RECENT PAPERS.

1401. DUTIL. — Transitory Post-epileptoid Paralysis. (*Revue de Médecine*, March.)
1402. TAMBUKINI AND SEPPILL. — Experimental Study of Hypnotism. (*Riv. Sfer. di Freniatria e di Med. Leg.*, Anno VIII., Fasc. iii. and iv., 1882.)
1403. SEPPILL. — Tendon-Reflexes. (*Riv. Sfer. di Freniatria e di Med. Leg.*, Anno VIII., Fasc. iii. and iv., 1882.)
1404. HAMMOND. — The Nature and Seat of Allochiria. (*Gaillard's Med. Jour.*, 1883, p. 129.)
1405. ABADIE. — The Syphilitic Origin of Locomotor Ataxy. (*Union Méd.*, Feb. 18.)
1406. STRÜMPFELL. — Cerebral Tumour with Central Unilateral Deafness. (*Neurol. Centralbl.*, 1882, No. 16; and *Centralbl. für die Med. Wiss.*, Dec. 16.)
1407. GAREL. — Paralysis of the Sixth Pair of Nerves. (*Revue de Médecine*, 1882, No. 7.)
1408. EISENLOHR. — Circumscribed Acute Anterior Poliomyelitis in an Adult. (*Centralbl. für die Med. Wiss.*, Dec. 23, 1882.)
1409. RUTIMEYER. — Hereditary Ataxy. (Virchow's *Archiv*, Band xci.)
1410. GANGHOFFNER. — Spasm of the Tongue. (*Prager Med. Wochensch.*, and *Centralbl.*, für die Med. Wiss., March 31.)
1411. EITNER. — Two Cases of Acute Bulbar Myelitis. (*Schweizer Aerzte Corresp.-Blatt.*, 1882.)
1412. VON WAHL. — Cephalic Tetanus or Tetanus Hydrophobicus. (*St. Petersburg. Med. Wochensch.*, 1882, No. 39.)
1413. VANLAIR. — The Regeneration of Peripheral Nerves by Means of Tubular Sutures. (*Centralbl. für die Med. Wiss.*, May 26.)
1414. RIEDEL. — Nerve-Lesion of the Left Lower Extremity with Rapid Destruction of the Knee-joint. (*Berliner Klin. Wochensch.*, April 23.)
1415. RIEDEL. — Lesions of the Vagus Nerve. (*Berliner Klin. Wochensch.*, June 4.)
1416. WEISS. — Cases of Spastic Spinal Paralysis. (*Prager Med. Wochensch.*, 1883.)
1417. EULENBERG. — The Treatment and Curability of Tabes Dorsalis. (*Centralbl. für die Med. Wiss.*, June 16.)
1418. MADER. — Spastic Paralysis. (*Wiener Med. Blätter*, March 15.)
1419. HEUBNER. — Cerebral Infantile Paralysis. (*Ibid.*, March 29.)
1420. SCHÜTZ. — The Use of Nussbaum's Bracelet in Writers' Cramp. (*Wiener Med. Blätter*, March 1.)
1421. BAAS. — Aphasia and Agaphia in Typhoid Fever. (*Deutsche Med. Wochensch.*, May 23.)
1422. MCCORMACK. — Double Identity after Trephining. (*New York Med. Record*, May 26.)

1423. BLAISE. — The Localisation of Cerebral Disease. (*Le Progrès Méd.*, No. 17, 1883.)

1424. CHARCOT. — A Case of Spinal Disease consecutive to Contusion of the Spinal Cord. (*Le Progrès Méd.*, No. 9, 1883.)

1425. LANNOIS. — Hemi-anæsthesia due to a Tubercle in the Posterior Part of the Internal Capsule. (*Révue de Méd.*)

1426. DE RENZI. — Isolation in the Treatment of Tetanus and Hydrophobia.

1427. BALL. — Menstrual Mania. (*Jour. de Méd. et de Chir. Prat.*, March.)

1428. BOURNEVILLE. — The Employment of Magnet in Epilepsy. (*Le Progrès Méd.*, 1883, No. 13.)

1429. VERNET. — On Aphasia with Lesion of the Insula. (*Le Progrès Méd.*, 1883.)

1430. RUSSELL, J., AND OTHERS. — On Epilepsy. (*Practitioner*, February.)

1431. BROWNE. — The Formation and Prevention of Bed-sores in Nervous Diseases. (*Lancet*, April, p. 631.)

1432. ALEXANDER. — The Cause of Vertigo. (*Brit. Med. Jour.*, May, p. 956.)

1433. SADOVSKY, T. — A Case of Epilepsy rapidly Developed from the Action of Cold. (*Médis. Obozrenie*, May 1882, p. 717.)

1434. CARUSO, G. D. — Two Cases of Spinal Irritation Cured by the Continuous Current. (*Il Pisani*, Disp. iv., v., and vi.)

ART. 1401. Dutil on Transitory Post-epileptoid Paralysis. — In the *Revue de Médecine* for March M. Dutil records six cases of epileptoid attacks followed by a transient paralysis more or less complete, with or without aphasia. Case I. — In the first case, a tuberculous man aged 52, the attacks commencing in the great toe, gradually extended over the whole right side, and five such occurred in rapid succession the day before his admission into hospital. Only at the fifth did he lose consciousness, and this was followed by right hemiplegia, which, however, had so far disappeared next day as to allow him to walk leaning on his wife's arm from the door to his bed. His speech was a little embarrassed. Dynamometric examination showed the right lower and upper limbs to possess less force than the left, the disproportion being most marked in the upper limbs. In the course of four days, however, they became nearly equal again. Case II. — The patient, aged 20, a young girl, had her first attack which commenced in the little finger of the left hand, in August 1881. It was followed on the same day by two others and left her 'as though paralysed' on the left side, the paralysis soon disappearing. Her next attack was in April 1882, and commencing in the left foot, extended over the leg and thigh, the arm and the corresponding half of the face. The attacks soon acquired a remarkable periodicity and came on every Wednesday evening between four and five. In the intervals the movements of the left hand were awkward, and the awkwardness was increased after each attack. In this case also the dynamometer showed increased enfeeblement on the affected side, which, however, continued to improve till it reached the wonted condition. In this as in the preceding case, there was flaccidity and not contraction of the affected muscles. Case III. — In the next case, a man aged 20 years, the attacks, commencing in the right arm and becoming generalised, sometimes with and sometimes without loss of consciousness, were followed by a painful and powerful contraction of the fingers, toes, and calves, which disappeared

gradually in some hours. The contractions were found on both sides but were most marked on the side first and principally affected. Case IV.—In the fourth case, the attacks commenced on the right side of the face with prickings in certain muscles, notably the zygomaticus major and the levator labii superioris, which were followed by convulsive twitchings of the same muscles, accompanied by aphasia, or sometimes merely embarrassment of speech. These attacks lasted a few minutes, and were not accompanied by loss of consciousness. Case V.—This case is one in which, while some attacks were devoid of sequelæ, others were followed by various results such as embarrassment of speech, contraction of the convulsed limbs, and in one instance, choreiform movements of the left upper extremity and left side of the face, which persisted for five weeks. There was also a series of minor attacks consisting of muscular enfeeblements lasting a short time. These attacks were well-marked by the dynamometric chart. Case VI.—In the last case, the patient, who had a long 'warning,' tied his handkerchief tightly around his right arm on one occasion as soon as he perceived the cramp and convulsive movements of the right leg indicating the access. This effectually checked the crisis, but a few minutes afterwards he found his right arm paralysed more particularly as regards the extensors. This disappeared in about an hour, but, as it did so, the patient became by degrees completely aphasic. All symptoms had disappeared next day, twelve hours after the attack. Remarking on these cases, the author points out the necessity of distinguishing permanent paralyses, the direct results of cerebral lesions accidentally co-existing with epileptiform attacks, from transitory post-epileptoid paralyses which are not immediately and necessarily dependent upon cortical lesions, and which may arise in epilepsy of purely peripheral origin. As to the cause of these attacks, he adopts the theory proposed by Todd, and subsequently by Robertson of Glasgow, and Hughlings Jackson, that the epileptic convulsion is the result of a 'discharging lesion'—or excessive functional excitement of the cortical motor centres—which by subsequent exhaustion may result in a transient paralysis disappearing as the exhaustion wears off. This view he adduces as the probable explanation of the good results alleged to follow various treatments of motor paralysis—viz., that the attacks were epileptiform not apoplectic, and the paralysis consequently only transitory. And referring to the localisation of cerebral motor impulses, he points out that the permanent paralyses are the result of limited destructive lesions in the cortical motor zone; while the transitory paralyses are determined by lesions situated in the neighbourhood—not in the area of the motor region. Whence permanent paralyses are the only sound basis for the topical diagnosis of lesions.

K. W. MILLICAN.

1402. *Tamburini and Seppilli on Hypnotism.*—These authors have investigated hypnotism from the purely objective side, studying the modes of producing the phenomena, the various stages exhibited, and the effects on motion, sensation, respiration, and circulation. Following Charcot and Richet, they divide the phenomena into three stages. According to the present authors, the first stage is the lethargic; the second, the cataleptic; and the third, or most intense degree of the phenomena, is the somnambulistic. The authors have given their atten-

tion more especially to the first two stages. It should be noticed that in some patients the lethargic stage occurs primarily; in others the cataleptic. The hypnotic sleep can be induced in any one of various ways: by steadily fixing the eyes, by a gentle and prolonged monotonous noise, or by slight and frequently repeated tactile sensations. The lethargic state is characterised by exaggerated muscular contractility, exaggerated tendon-reflexes, and paradoxical contraction of Westphal. The respiratory movements are deeper and more frequent, and the circulation shows increase in volume in the peripheral vessels. There is also auditory hyperæsthesia. The cataleptic state, on the contrary, exhibits plastic flexibility of the limbs, diminished tendon-reflexes, diminished sensibility, slow and superficial respiration, and contraction of the peripheral vessels. The somnambulistic condition is marked by general and lasting contracture, which does not yield either to stimuli or to the action of the antagonistic muscles. The subject can, by suitable stimuli, be passed from one stage into another; and even one half of the body may be thrown into the cataleptic state, the other half remaining in the lethargic condition. For example, let the hypnotic sleep be induced by gentle pressure on the eye-balls. The patient falls into the lethargic condition with exaggerated muscular contractility. Now, if one eye be opened and exposed to a strong light, that side becomes cataleptic. One of the most curious phenomena is that the repetition of the stimulus that gave rise to any particular stage of hypnotism restores the patient to his original condition (that is, to the condition in which he was when the stimulus was previously applied). Thus, to remove a person from the hypnotic state, it is only necessary to repeat the stimulus that excited the condition; the different effect depending, according to the authors, on the different conditions of the nerve-centres at the times of the different applications. In regard to the interpretation of hypnotism, Tamburini and Seppilli do not think that the phenomena are due to the removal of the inhibitory influence of the higher centres. On the contrary, they believe that the diverse phenomena of the lethargic, of the cataleptic, and of the somnambulistic states are only so many various manifestations of the increased excitability of the central motor apparatus. The investigations made by these authors are worthy of attention, though their belief in magnets and metals indicates that their conclusions should be received with caution.

1403. *Seppilli on Tendon-reflexes.*—The author finds (*Riv. Sper. di Fren. e di Med. Leg.*, 1882) that the tendon-reflexes are nearly always preserved in the insane. Out of 168 cases it was absent in eleven. Out of ten cases of general paralysis of the insane, in only one case was the reflex wanting, whilst in four cases it was exaggerated.

WILLIAM R. HUGGARD, M.D.

1404. *Hammond on the Nature and Seat of Allochiria.*—Professor Hammond, of New York (*Gaillard's Medical Journal*, 1883, p. 129), has described a case of crossed sensibility, to which Obersteiner has given the name of allochiria. The patient had suffered from a carriage-accident, which had given rise to lateral sclerosis of the spinal cord, or spastic spinal paralysis. Besides this, however, it was ascertained, on testing the sensibility of the lower extremities, that there was complete anaesthesia in the right leg; but that, when the left leg was

pricked or pinched, a sensation was experienced in the exactly corresponding situation on the other leg. As, in one of Obersteiner's cases which proved fatal, a necropsy was obtained which showed disintegration of the posterior horns of the grey matter, amongst other lesions, Hammond is inclined to ascribe the phenomena of allochiria to disease of those parts. There being an almost complete decussation of sensory fibres in the grey matter, lesion of the right posterior horn would produce anesthesia of the left side of the body, and *vice versa*. Where allochiria exists, it is essential that the lesion should be unilateral, or, if both horns be involved, that the changes should be at different levels. Of Obersteiner's four cases of allochiria, two were of locomotor ataxy, one of hysteria, and one of direct and severe injury of the spine. [It will be well to wait for some more *post mortem* examinations before accepting the posterior horn theory.—*Rep.*]

1405. *Abadie on the Syphilitic Origin of Locomotor Ataxy*.—M. Ch. Abadie (*Union Médicale*, Feb. 18, 1883) opines that the pathology of tabes is becoming confused rather than cleared up by many recent researches, and considers the absence of the patellar tendon-reflex as frequently a mere functional and extremely unimportant disturbance. With regard to syphilis, he thinks that a chancre is an extremely common occurrence, and that a patient, who states that he has had a chancre, must not therefore be at once considered syphilitic. Syphilis does not appear to produce systematic lesions, but rather irregular, circumscribed, and disseminated affections. Moreover, antisyphilitic treatment never does any good in tabes, more especially in the optic atrophy of that disease, but seems on the contrary sometimes to make it worse. Even when these cases, which can be well studied and followed up with the aid of the ophthalmoscope, come under care at an early stage, that treatment never has the least beneficial result. Mercury especially does harm, and accelerates the progress of the optic affection as well as of the spinal disease. Even subcutaneous injections of peptonate and cyanide of mercury, which are so useful in choroiditis and specific neuritis, utterly fail in the optic atrophy of tabes. Optic neuritis on a syphilitic base yields almost invariably to mercurial inunction; but atrophy of the optic nerve is never preceded or accompanied by any symptoms of inflammation. The changes which gradually occur in the nerve are shown by simple discoloration; there is never any redness, ulceration, infiltration, or effusion, as is otherwise invariably caused by syphilis; and this appears to M. Abadie a decisive argument against the syphilitic origin of tabes. Syphilis of the spinal cord indeed differs as much from real locomotor ataxy, as cerebral syphilis differs from general paralysis of the insane. In the discussion which followed the reading of M. Abadie's paper at the Société de Médecine of Paris, most speakers disagreed with the author's conclusions.

JULIUS ALTHAUS, M.D.

1406. *Strümpell on Cerebral Tumour with Unilateral Deafness*.—In the *Neurol. Centralbl.* for 1882, No. 16 (*Centralbl. für die Med. Wiss.*, Dec. 16), Dr. A. Strümpell records a case of paralysis of the left side of the face, of the left extremities, with diminished sensibility and increased tendon-reflex, congested papillæ on both sides, paresis of the right abducens nerve, impaired vision, subsequently amauroses, headache; and about two months later there

supervened almost total deafness on the left side. Death took place ten weeks later. Dissection revealed a glioma about the size of an apple in the cortex of the right hemisphere with surrounding softening, extending from the fissure of Rolando to the parietal lobes, and reaching below to the central ganglia. The middle ear was intact. The case is interesting, not only on account of the origin of the unilateral deafness, but because it seems to show that the localisation of the perception of auditory impressions depends upon double hearing.

1407. *Garel on Paralysis of the Sixth Pair of Nerves*.—J. Garel describes the following case in the *Revue de Médecine*, 1882, No. 7. After an apoplectic seizure, a man, aged 64, manifested the following symptoms; right-sided facial paralysis, with implication of the orbital branches; paresis of the left lower extremities without impairment of sensation; paralysis of the right abducens (sixth nerve); paresis of the left internal rectus muscle, when the patient would put it into action with the right external rectus; the functions of the left internal rectus were less impaired, if employed with the right to fix the eye upon some near object. *Post mortem*, there were found thrombosis of the basilar artery, and adhesion of this vessel to the pons Varolii. At this part was a small spot of softening on the right side extending slightly to the left. The right anterior corpus quadrigeminum was, when cut into, rose-coloured, but was not softened. The floor of the fourth ventricle appeared to be intact. On section, it was seen in the next place that the patch of softening was altogether superficial, but sent a prolongation into the medulla oblongata from the right backwards towards the nucleus of the abducens, yet so that the deposit was 1 mm. (= 0.039 inch) below the floor of the fourth ventricle, but did not reach to it. The brain, generally, was normal, with the exception of a considerable quantity of fluid in the right ventricle.

1408. *Eisenlohr on Circumscribed Acute Anterior Poliomyelitis in an Adult*.—C. Eisenlohr describes (*Centralbl. für die Med. Wiss.*, Dec. 23) the case of a woman, aged 52, who had for the last five years of her life suffered paralysis and atrophy of the right arm and shoulder. The triceps and extensor of the forearm were most especially atrophied; atrophy of the small muscles of the hand was marked. The arm, the hand, and the fingers remained flexed; occasional fibrillar tremors were seen. Sensibility was unimpaired, and the lower limbs were not paralysed. The excretions were normal. The pectoralis major, serratus, and triceps muscles were unexcitable to direct faradaic stimulation; the deltoid, biceps, supinator longus, pronator teres, flexor digitorum, and interossei were excitable. Dissection showed a healthy brain, the central structure of a pale colour; the right anterior cornu of the cervical region of the spinal cord was shorter than the left. In the atrophied muscles the primitive fibres were found wasted, wanting in striæ; fat and pigmentary corpuscles prevailed in the remaining fibres. The biceps was healthy, the brachialis internus was much degenerated. The anterior roots of the right cervical nerve were degenerated and atrophied, the third and fifth cervical were normal, the sixth was partially degenerated. The nerves on the right side were normal. In the spinal cord, between the sixth cervical and first dorsal nerves, the anterior cornu was shrunken, and there was a deficiency of ganglion-cells (especially in the posterior lateral group), and of the net-

work of nerve-fibres, with a great development of Deiter's cells. The vessels of the affected part were much reduced in number. The cornu on the left side was healthy. The part of the cervical cord above the sixth nerve, and the dorsal and lumbar regions of the cord, exhibited nothing abnormal. The author regards the case as one of a true subacute unilateral poliomyelitis, and limited to a portion of the anterior cornua corresponding to less than three nerves supplying the muscles of the upper limb.

1409. *Rutimeyer on Hereditary Ataxy.*—Dr. L. Rutimeyer (*Virchow's Archiv*, Band xci., and *Centralbl. für die Med. Wiss.*, March 12) has in two families met with respectively eight and three cases of this affection. In all it commenced in infancy, and progressively developed itself as ataxy of the lower extremities, trunk, and later on of the upper extremities, to which also were added aphasia and nystagmus. The following are the principal features of these cases as distinguished from the cases described by Friedreich. The latter began at the age of puberty; impairment of the senses of taste and sensation was evident; the phenomena of paresis, paralysis, and contraction appeared earlier; the pathological process showed a greater tendency to spread from the posterior columns of the spinal cord, transversely, to the grey substance. Contraction of the tendons of the feet, especially of the great toes, occurred earlier. The knee phenomena were absent; there was a sense of constriction as by a girdle, and disordered sensibility; the sphincters remained normal; reflex constriction of the pupils was not observed. The medulla oblongata and corpora quadrigemina were doubtless the starting point of these symptoms, which indicated affection of the posterior roots.

1410. *Ganghoffner on a Case of Spasm of the Tongue.*—E. Ganghoffner (*Centralbl. für die Med. Wiss.*, March 31, from *Präger Med. Wochenschr.*) describes the following case. A youth, aged 19, had from infancy suffered under a spasmodic affection of the muscles of the tongue, which, when he began to speak, protruded from his mouth. Simultaneously with this movement he experienced jerking of the right lower extremity. In repeating by heart a poem, in singing, or in rapid speaking, the spasm of the tongue would pass off. The patient was anæmic, but otherwise in good health. When not speaking, he seemed to have nothing about him abnormal. His mother had suffered from deafness from her childhood; a brother also had presented a similar defect of speech; a sister was epileptic. Treatment by bromide of potassium had no influence over the spasms.

1411. *Etter on Two Cases of Acute Bulbar Myelitis.*—P. Etter relates in the *Schweizer Arzt. Corresp.-Blatt*, 1882 (*Centralbl. für die Med. Wiss.*, March 31) the following two cases. In the first case, a female, aged 27, suffered strabismus, followed in a few days by paralysis of the oculo-motor, abducent, and trochlear nerves, with feebleness of both facial and accessorius, and total paralysis of deglutition. There was considerable weakness of sight, not remediable by glasses. The ophthalmoscopic examination detected nothing abnormal. The extremities were unimpaired, as were also the parts supplied by the fifth nerve. The second case was that of a boy aged 15. With headache, rigor, and vomiting, there followed, in the course of a few days, dysphagia and feebleness of the parts supplied by the facial and hypoglossal, more especially on

the left side. Paralysis of the velum palati ensued; and, eight days afterwards, paresis of the left abducent nerve, with paralysis of the glottis and of the cervical muscles. Then paresis of the internal rectus occurred; speech became indistinct, swallowing became impossible, so that artificial feeding became necessary; and on the tenth day death ensued from pneumonia. *Post mortem* inspection revealed numerous deposits in the medulla oblongata. The left abducent and the trunk of the facial nerve were more especially affected; a mass of softening was observed on the right side. The nuclei of the hypoglossal nerve on the left side were diseased, the morbid change extending to the olivary body on the right side. The group of cells of the accessory nerves in the outer border of the anterior horn in the spinal cord, as high as the fourth cervical nerves, had also undergone morbid change, most distinctly on the left side. [The exact nature of these changes is not given.—*Résumé.*]

1412. *Von Wahl on a Case of Cephalic Tetanus, or Tetanus Hydrophobicus.*—E. von Wahl (*Centralbl. für die Med. Wiss.*, March 14, from *Petersburger Med. Wochenschr.*, No. 39, 1882) relates the following case. Nine days after an injury to the right side of the forehead, close to the edge of the orbit, a man, aged 41, suffered lock-jaw, and right facial paralysis. The muscles of these parts showed exaltation of their reflex excitability. Sensibility remained intact. The muscles of the trunk and extremities were unaffected, as were also those of the neck. Electric excitability of the facial muscles was normal on both sides. The reflex excitability of the muscles of deglutition, also, was so much augmented that the act of swallowing was almost impossible. The tongue was mobile, as also the uvula and palatine arch. The duration of the case from the receipt of the injury was three weeks, when it ended in death.

1413. *Vanlair on the Regeneration of Peripheral Nerves by means of Tubular Sutures.*—C. Vanlair (*Centralbl. für die Med. Wiss.*, May 26) says that, failing to obtain union of divided ends of nerves by Glück's method of the introduction of these into a tube of calcined bone, he has succeeded with the sciatic nerve of a dog by inserting the two ends of nerve into a drainage-tube, in which, although the two ends do not come into immediate contact, he finds that proliferation takes place at the central end and extends gradually to the peripheral segment. Thus a partial restoration of the muscular action takes place by the regeneration of the motor nerve fibres. The proliferation of the axis-cylinder commences above the section, as high as $1\frac{1}{2}$ centimètre (= about $\frac{1}{2}$ English inch), and shows itself first in lines on the central section; the result, the author considers, of inflammation of the epineural tissues. The newly formed fibres are originally only bare axis-cylinders, with scattered protoplasmic nuclear corpuscles. Later on they gain a covering of connective tissue (the *gaine lamelleuse*), until, still later, the line of demarcation between the two altogether disappears. The intermediate segment exhibits in its upper half minute new fibres embedded in a homogeneous mass, and in all stages from that of the bare axis-cylinder to the perfect medullary nerve. In the lower segment the fibres are more completely formed, showing that growth had taken place from the periphery towards the centre. By the employment of the tube, it is thus possible to unite the ends of nerves between which a con-

siderable space exists, and this will prove of value in surgical operations.

1414. *Riedel on Nerve-lesion of the Left Lower Extremity, with Rapid Destruction of the Left Knee-Joint.*—B. Riedel, of Aix-la-Chapelle, relates the following case in the *Berliner Klin. Wochens.*, April 23. A powerful man, aged 25, was, on Aug. 16, 1881, stabbed in the back, the knife passing between the first and second lumbar vertebrae to the left of the middle line. The patient lay in a swoon for an hour afterwards, and frequently during the next eight days became unconscious. On first coming to himself the left lower extremity, from the hip downwards, was numb and powerless. In the course of the first week clonic spasms of the flexor frequently occurred, which, however, ceased on removal of the sutures from the wound, with the concurrent escape of bloody serum. The wound was healed in about three weeks, yet for two months the patient remained in bed, unable to do more than slightly flex the thigh. Nothing abnormal was to be seen on the knee or foot, and the patient was free from pain. After about three months from the date of the injury he began to move on crutches, when, within eight days, without the occurrence of any pain, the knee-joint was so entirely destroyed that the leg could be flexed on the thigh at almost any angle. In May 1882, he left the hospital, but returned in September with an ulcer, which could not be healed, on the sole of the foot. The affected limb was swollen, and was a centimètre and a half shorter than the other. The swollen knee-joint contained fluid, and grated sensibly on movement, and, as previously, could be bent in any direction. Under these circumstances, amputation was performed. In about three months the patient walked on a wooden leg, no worse than others in a similar condition. The several parts of the joint had undergone great changes. The peripheral nerves, at their termination at the second lumbar vertebra, had not shown evidence of injury until the excessive and premature use of the joints induced lesions, resembling those pointed out by Charcot as occurring in tabetic arthritis.

1415. *Riedel on Lesions of the Vagus Nerve.*—It has recently been held by Dr. Deibel (*Ueber die Traumatische Vagusparalyse beim Menschen*, Berlin, 1881) that in an otherwise healthy person unilateral section of the vagus is not necessarily followed by dangerous consequences. This opinion, Dr. B. Riedel remarks (*Berliner Klin. Wochens.*, June 4), being founded upon a limited number of cases, its value depends upon further observation. Dr. Riedel communicates the following case. J. R., a labourer, aged 49, had suffered for several years from a strumous enlargement, which within eight weeks had rapidly increased in volume. The patient suffered severely from pains radiating from this point, and was becoming much emaciated. A smooth lobulated tumour was felt on the left side of the neck, which pushed the larynx over toward the right. The tumour passed under the sterno-cleido-mastoid muscle behind the left ear, to such an extent that the space between the maxilla and the clavicle was almost filled up. It had somewhat displaced the vessels, but there was no indication of pressure upon these or on the nerves in the neck. The pulse was good, the voice clear, and respiration normal. The removal of the tumour was therefore feasible, despite the cachectic condition of the patient. The removal was effected on October 26, by in the first place cutting

through the sterno-cleido-mastoid and reflecting the divided muscle, whereby the tumour became a little more mobile. Preliminary detachment of the tumour from the great vessels behind the clavicle was impossible, whilst it was fixed between the latter and the maxilla. It could only be released step by step, as it was found to be closely united to the internal jugular vein. The separation was only effected with great difficulty, the space between the tumour and the maxilla being deep and narrow. The vagus, stretched and attenuated by the tumour, was cut through without producing any effect upon the pulse or respiration. A prolongation of the pulse occurred for a short time, when a ligature was applied to the jugular vein. A second division of the vagus (to the extent of 15 centimètres) occurred in enucleating the tumour. The operation was concluded by the division of the isthmus of the thyroid. The temperature and the pulse rose after the operation, but declined on the third day; and the patient appeared to be progressing favourably, except that there was loss of voice. On the twelfth day rigors occurred, followed by a slightly purulent expectoration; and without any further occurrence of dyspnoea the patient died. On inspection of the parts, it was found that the jugular vein between the ligatures contained coagulation, which extended towards the head. The brain, apart from old thickening of the pia mater, was healthy. The heart also was healthy. The muscles of the larynx on the left side were in a state of fatty degeneration. The right lung was cedematous. In the upper lobe of the left lung there was puriform bronchitis and congestion of its parenchyma. In this case the cause of death is not clearly made out; but it may have been due to the condition of the lung induced by division of the vagus.

1416. *Weiss on Cases of Spastic Spinal Paralysis.*—Dr. N. Weiss relates the following cases (*Prager Med. Woch.*, 1883, and *Centralbl. für die Med. Wiss.*, June 23). 1. A man, aged 55, suffered from weakness and stiffness of his lower extremities, the upper limbs remaining unaffected. The only other symptom that he presented was slowness of speech. After death, symmetrical sclerosis of the lateral columns was found. There were also two deposits in the brain—one a cyst of the size of a walnut, on the right side in the posterior part of the corpus striatum, reaching in the corpus dentatum. On the other side a deposit of cell-growth, of the size of a hazel-nut, was found in the corpus striatum. 2. A man, aged 31, having experienced pain and sense of constriction in his limbs, found difficulty in walking. Some weeks afterwards, symptoms of pressure on the cord appeared. Caries of the sixth, seventh, and eighth dorsal vertebrae was found after death, with secondary degeneration of the lateral columns of the spinal cord. 3. A man, aged 29, had only for a short period before his death the symptoms of spastic paralysis. Nerve-stretching had been employed. Death occurred in nine days; on *post mortem* examination, multiple cerebro-spinal sclerosis was found.

1417. *Eulenberg on the Treatment and Curability of Tabes Dorsalis.*—Dr. Eulenberg states (*Centralbl. für die Med. Wiss.*, June 16) that he had cured three cases out of three hundred patients; and that after a lapse of several years the cure had continued unimpaired. In one case he had administered nitrate of silver. In the second case he had employed galvanism, and completed the cure in a hydropathic establishment. In the third he had

combined galvanism with Chapman's warm water bags. Finding that the nitrate of silver was often of no service, the author attributed the failure to non-absorption of the salt. To obviate this difficulty Dr. Eulenberg employed daily subcutaneous injection of an albuminous solution, in the dorsal region. If severe pains were experienced, morphia was injected. The author has seen much benefit follow the long continued use of Chapman's bags, in the recumbent position.

W. B. KESTEVEN, M.D.

1418. *Mader on Spastic Paralysis*.—Dr. Mader of Vienna, writing on spastic paralysis (*Wiener Med. Blätter*, March 15), gives a case where all the symptoms were those of the disease described by Erb and Charcot, but where, after death, although superficial microscopic investigation seemed to show the affection of the lateral columns to be primary, yet a more exact examination, undertaken by Professor Chiari, seemed to indicate that the lateral affection was secondary. Meningitis of the spinal cord in the cervical and dorsal regions was found, which Professor Chiari believed to be the primary affection; but Dr. Mader thinks it may have been caused by the exposure during a drunken fit, which brought on the cystitis from which the patient died. The first appearance of paralytic symptoms, too, twenty-five years before, was in the lower extremities, and in the lumbar part of the spinal cord no meningitis was found, but only grey degeneration of the crossed pyramids.

1419. *Heubner on Cerebral Infantile Paralysis*.—On account of the rarity with which infantile paralysis can be investigated by the same person both during life and after death, Professor Heubner of Leipzig reports (*Wiener Med. Blätter*, March 29) a case which he was able to follow from its commencement to the necropsy. A formerly healthy child, 15 months old, who had become rather pale and thin from an attack of tracheo-bronchitis, was suddenly seized with a slight convulsion, which recurred two days afterwards, no cerebral symptoms being observed in the interval. Two days later, during the early part of the night, a much more severe attack came on, with complete and lasting loss of consciousness, trismus, rigid extension of the extremities, rapid pulse, and very high temperature—nearly 105° F. For four weeks the infant's life was in great danger, the trismus persisting for nineteen days, and necessitating the administration of fluids through the nose, and the symptoms of cerebral fever causing great anxiety. By the fifth week the danger to life was past, and the expression of the child's face showed some interest in what was going on; but the contraction of the extremities never disappeared, the trunk muscles were so paralysed that the child could not sit, and she never learned to speak. Death occurred at the age of 3½ years, in the course of a severe bronchitis, and cysts filled with clear fluid were found in five situations in the brain—1, on the surface of the left hemisphere, destroying both central convolutions; 2, in the gyrus postcentralis of the right second parietal convolution, extending inwards to the outer wall of the lateral ventricle; 3, a very small one in the interior of the right cerebrum; 4, in the left corpus striatum, occupying the place of the destroyed nucleus lenticularis; 5, in the pons Varolii, destroying the fibres of the pyramids. The cause of all these appearances was explained by the presence of the remains of old endocarditis and embolic infarcts in the kidney, and the remains of an embolic clot were still visible in the artery of the right Sylvian fissure.

1420. *Schütz on the Use of Nussbaum's Bracelet in Writers' Cramp*.—At a meeting of the Society of German Physicians in Prague, on Feb. 16 (*Wiener Med. Blätter*, March 1), Dr. Emil Schütz mentioned a striking case of success from the employment of Nussbaum's bracelet in writers' cramp. (A description of the bracelet and of the treatment will be found in the LONDON MEDICAL RECORD for Dec. 1882, p. 491.) A clerk had been unable to write for months, and had been treated for four weeks with passive movements and massage without result, in spite of careful abstaining from writing during that time. Immediately on the application of the bracelet he was able to write, and on the following day he resumed his work for the usual time without any difficulty; only, however, so long as he wore the bracelet. Cases where the inability to write depends on other muscles than those of the fingers, or where tremor is present, do not seem to benefit by the bracelet. Professor Gussenbauer supported what was said, mentioning that the treatment is of no avail when contraction of the muscles of the arm has occurred.

1421. *Baas on Aphasia and Agaphia in Typhoid Fever*.—Dr. Baas, of Mayence, mentions (*Deutsche Med. Wochenschrift*, May 23) a case of aphasia and agaphia, with paralysis of the right facial nerve and of the right arm, in a boy, aged 8½, in the course of a severe attack of typhoid fever. The paralysis appeared on the twenty-first day, when the sensorium was much affected; the other symptoms were first noticed on the return of consciousness. The patient could not pronounce either words or numbers, although he held up his fingers correctly to express a number suggested to him; and the scrawls which he made on attempting to write were the source of great amusement to him, as he saw them so different from what he intended to make. There were no signs of improvement in the aphasia until eight weeks from the commencement of the illness, but then the boy began to learn step by step anew to speak and to write, and by the end of a month he could do both well. The lesion was probably a capillary apoplexy in the left third frontal convolution and its neighbourhood, but the diagnosis was not, fortunately for the patient, verified *post mortem*.

ALICE KER, M.D.

1422. *McCormack on Double Identity after Trephining*.—Dr. McCormack (*New York Med. Record*, May 26, 1883) relates the case of a farmer, aged 23, who, when fifteen years of age, was struck on the head with a pointed hammer, from which injury he was unconscious for some hours, and slowly recovered, retaining a permanent depression of the skull in the situation of the wound. Two or three years later he changed his abode, purchased a farm, and married. About six months before coming under medical treatment, he had begun to show signs of mental derangement. The depressed portion of the bone was removed by trephining, and the patient made an excellent recovery, the relief to the mental symptoms being immediate and permanent. But he seemed to think he had just recovered from the blow on his head; he did not recognise his wife, knew nothing of the purchase of his farm, and had lost all recollection of the neighbours, his business, and the roads of the district. He said he was quite unable to recall any circumstance which had occurred during the interval between his injury and the operation.

1423. *Blaise on the Localisation of Cerebral Disease*.—Blaise reports (*Le Progrès Méd.*, No. 17,

1883) two cases which oppose the doctrines of cerebral localisation. In the first, an old woman, aged 61, had right hemiplegia of five years' standing, followed by contraction. At the necropsy the left side of the brain, the cerebellum, peduncles, medulla oblongata, and spinal cord were healthy, while on the right side there was a small patch of softening from 5 to 7 millimetres in depth at the posterior end of the fusiform lobule, extending to about a centimetre from the posterior extremity of the occipital lobe. There was also a linear ochreous patch on the upper half of the external surface of the putamen (ascending frontal section). On separating the lips of the anterior fissure of the medulla, there was evidence of the decussation of the pyramids. In the second case, a man, aged 61, after an attack of bronchitis and pleurisy, lost a great degree of his cutaneous sensibility on the left side. His special senses were unaffected. This hemi-anæsthesia, which affected the face, arm, and leg, lasted till his death. At the necropsy, besides a few adhesions of the membranes over the frontal and occipital lobes, the only lesion was a patch of softening of the white substance around the external surface of the extremity of the posterior horn of the right lateral ventricle.

1424. *Charcot on a Case of Spinal Disease consecutive to Contusion of the Sciatic Nerve.*—Charcot (*Le Progrès Méd.*, No. 9, 1883) relates the case of a man, aged 40, who had never had syphilis, gonorrhœa, nor rheumatism, but who had certainly committed alcoholic excesses four years anteriorly, and who was struck on the buttock by the end of a piece of timber just over the sciatic nerve. In consequence he suffered from severe sciatic neuralgia, followed by partial paresis and muscular wasting, well recognised results of such an injury. But, in addition, he began to complain of a constriction round his waist, and lost control over his sphincters and power of erection. The affected leg was wasted, cold, and marbled looking; the foot was a little swollen; sensibility, especially electric sensibility, was diminished; cutaneous reflexes were normal; the tendon-reflex was normal, but exaggerated, in the other leg. But in percussing the patellar tendon of the affected leg there was a sharp movement of adduction towards the middle line. In addition, electrical examination gave the reaction of degeneration in the muscles supplied by both the large and the small sciatic nerves.

1425. *Lannois on Hemi-anæsthesia due to a Tubercle in the Posterior Part of the Internal Capsule.*—Dr. Lannois (*Révue de Méd.*, Reprint) reports the case of a young soldier who was attacked by orchitis, the result of mumps. The orchitis was followed by caseous epididymitis, and a few months later he began to complain of headache, vertigo, vomiting, slight paralysis of the left side of the face, and well marked hemi-anæsthesia, limited to the left side. Smell, taste, and hearing were defective, but vision was quite normal; there was neither hemiopia nor amblyopia. The patient died later with symptoms of tuberculosis. In the brain there were about eighty tubercular tumours, but one in particular occupied the posterior part of the internal capsule in the right hemisphere. This situation is that in which lesions, both experimental and pathological, have been shown to be followed by hemi-anæsthesia, but the pathological lesions heretofore described have been hæmorrhages.

1426. *De Renzi on Isolation in the Treatment of Tetanus and Hydrophobia.*—Prof. de Renzi, of

Genoa, has treated certain cases of tetanus successfully by plugging the external auditory canals with wax, and placing the patient alone in a darkened room, the door of which was opened every four hours to give food and drink. The patient was urged to keep as quiet as possible. A similar line of treatment is recommended by M. Lucas-Championnière in cases of hydrophobia.

1427. *Ball on Menstrual Mania.*—Prof. Ball (*Jour. de Méd. et de Chir. Prat.*, March 1883) lately quoted from Hitzig an interesting case of menstrual mania, in which a mother killed her child during such an attack. In the interval she was quite sane, but at every monthly period she was subject to an attack of acute mania which, in this instance, proved homicidal. Such cases have a well-defined medico-legal interest.

1428. *Bourneville on the Employment of Magnets in Epilepsy.*—M. Bourneville (*Le Progrès Méd.*, 1883, No. 13) gives a short summary of the history of the employment of magnets in epilepsy, which goes back as far as Paracelsus, with drawings of the various apparatus used. In fifteen cases submitted to this treatment he found no very definite results; two were slightly better during the time it was in use, but he does not accept the view that the amelioration was due to the treatment.

1429. *Vernet on Aphasia with Lesion of the Insula.*—Vernet (*Le Progrès Méd.*, No. 23, 1883) has described a case of right-sided hemiplegia and aphasia. A month before the attack there was transient vertigo with slight right-sided paralysis. After the attack, there was marked aphasia, with retention of the intellectual faculties. There was a third attack before death, after which the patient did not regain consciousness. At the necropsy there was found disease of the aortic valves, with atheroma of the coronary arteries. The left frontal convolution was quite intact; the white matter of the left island of Reil was the seat of a hæmorrhage. On the right hemisphere, there were a patch of softening in the occipital lobe at the summit of the parallel fissure, and another patch of softening at the lower part of the fissure of Rolando, extending to the foot of the third frontal convolution. R. SAUNDY, M.D.

1430. *Russell and Others on Epilepsy.*—The *Practitioner* for February 1883 contains a series of original articles on epilepsy. Dr. James Russell treats of the remedies used for epilepsy before the introduction of the bromides; amongst them, iron, zinc, arsenic, strychnia, opium, cannabis Indica, belladonna, atropine, &c., are noted, and cases illustrating their use are given. Dr. Radcliffe communicates some medical annotations concerning epilepsy, paralysis, and other disorders of the nervous system; whilst Dr. Robert Saundby writes on the treatment of epilepsy in which he draws attention to the following points: 1. The value of combining bromine salts with each other and with digitalis; 2, the use of zinc and cannabis Indica as adjuncts to the bromide of potassium; 3, the use of borax in some cases which resist the bromides; 4, the employment of caffeine or theine, and nitro-glycerine, in the treatment of epileptic vertigo.

1431. *Browne on the Formation and Prevention of Bed-sores in Nervous Diseases.*—Dr. Crichton Browne in the *Lancet*, April 1883, p. 631, details his experience in the treatment of diseases of the nervous system. He commences his paper by putting forth some of the views that explain the occur-

rence of bed-sores in such cases, and then goes on to show how they may be avoided; but, as his experience has been nearly confined to instances of general paralysis, his remarks necessarily have chiefly reference to that disease. Special attention is drawn to the necessity of giving the patient a liberal mixed animal and vegetable diet, with as little alcohol as possible, and paying great attention to scrupulous cleanliness.

1432. *Alexander on the Cause of Vertigo.*—Mr. Alexander, in the *Brit. Med. Jour.*, May 1883, p. 956, refers to a paper on 'Vertigo,' &c., by Dr. Woakes, in the *Journal of April 28*, where Dr. Woakes says that vertigo and the phenomena associated with it are due to changes in the vertebral artery. Mr. Alexander draws attention to an article in *Brain* (July 1882, p. 170), where an account of several cases of ligature of both vertebral arteries in epileptics is given. In only one case, in which Mr. Alexander ligatured both vertebrals, did any disturbance ensue in the brain, and in that case tinnitus and deafness came on, but not vertigo. No mental hebetude has followed the ligature in any case, such as occurs after the vertebral inefficiency of Dr. Woakes.

RICHARD NEALE, M.D.

1433. *Sadovsky on a Case of Epilepsy from the Action of Cold.*—In the *Mediz. Oberzeiter*, May 1882, p. 717, Dr. T. Sadovsky records an instance of what he believes to be epilepsy from the action of cold. His patient was a strongly built, previously quite healthy, married peasant woman, aged 20, who, twenty-four hours after severe chilling on a cold windy winter-day, began to suffer from 'epileptic' fits. During the first day there were 12 paroxysms, 'each lasting about 10 or 15 minutes,' and each beginning with aura in shape of epigastric pain. Simultaneously there appeared slight fever, tenderness and enlargement of the spleen, tenderness in the hepatic region, loss of appetite, and sleeplessness. The administration of muriate of quinine proved of no avail. During eight days the fits returned about ten times a day. On the ninth day the author administered a dose (30 grains) of chloral, and a mixture containing 1 drachm of bromide of potassium, 3 drachms of tincture of convallaria majalis, and an ounce of distilled water: four table-spoonfuls daily. No more fits followed. Three days later the patient left the hospital, feeling quite well. [Another case of 'epilepsy from cold' is reported by Dr. Bluch in the *Centralblatt für Nervenkunde*, 1882, p. 504.—*Rep.*]

V. IDELSON, M.D.

1434. *Caruso on Two Cases of Spinal Irritation Cured by the Continuous Current.*—Spinal irritation is a special functional alteration of the spinal cord. It is important to establish early an exact diagnosis, as it is often confounded with incipient disease of the cord of much graver prognosis. There are two forms—the hyperæsthetic and the neurasthenic; the first occurring chiefly in females, the latter in males, the morbid change in both being probably the same. Erb, on the other hand, considers these as two separate morbid conditions, and draws a distinction between spinal irritation proper and spinal neurasthenia. Of the morbid anatomy, nothing is certainly known. Hammond, considering that spinal irritation is developed under the influence of debilitating causes, thinks that these may bring about such exhaustion of the vaso-motor centres, that hyperæmia from relaxation of the vessels results. In other cases, where the determining cause is violent psychical excitement, a contraction of the vascular

walls is set up, causing a spasmodic anæmia. Beard also maintains that hyperæmia sometimes, and sometimes anæmia, may be the cause of spinal irritation. Hirsch and Erb think that there is only a functional disorder, without any organic change in the cord; the functional alterations consisting in intimate and subtle lesions of nutrition of the lumbar section of the cord. This hypothesis seems most in accord with the ordinarily favourable course of the disease, the absence of paralytic phenomena, and the want of an objective change. As regards diagnosis, spinal irritation may be at first confounded with other spinal diseases, but with care it may be easily distinguished, especially if one notice that the subjective phenomena complained of by the sufferer are not at all in proportion to their objective examinations. Clinically, it is useful to distinguish the hyperæsthetic form from the neurasthenic; the first occurs chiefly in females, the second in males. In the first, disorders of sensation predominate, severe pain in the back and along the spine, which is sensitive and painful on pressure, and to the contact of the hot or cold sponge. In neurasthenia, defect of motor energy and loss of sexual power are the chief symptoms. The causes of both varieties are much the same, psychical influences, overwork (mental or bodily), grief, anxiety, sexual excesses, loss of sleep, &c. It is very important to distinguish spinal irritation from other diseases of the spine, not only to determine the treatment, but to ease the patient's mind, who is nearly always hypochondriacal and fancies that he has some grave and incurable malady. From active hyperæmia of the cord, the neurasthenic form is distinguished by the acute pain of the spine, cutaneous hyperæsthesia, and convulsive attacks, and from passive hyperæmia by the different 'etiological momentum,' and in this, symptoms of paresis and sense of weight in the lower limbs quickly show themselves. Hyperæsthetic spinal irritation is more easily confounded with spinal hyperæmia, but the long duration of the malady and the absence of paralysis point out the nature of the disease. The early appearance of paræsthesia, 'lightning pains,' and pain round the waist, inability to walk with the eyes closed, &c., distinguish the case from incipient tabes. From myelitis the diagnosis is easy; the spine is only painful on strong pressure, there is pain round the waist, cramps, and painful contractions, and soon anæsthesia and paralysis of the lower limbs and bladder. The most successful treatment is by the continuous current. It is principally in virtue of the specific catalytic action of the continuous current, which is exerted on the blood-vessels, or the processes of absorption, osmosis, and interchange of material, that the alterations of nutrition that are supposed to exist in the cord, are resolved. The faradic current has very little catalytic action, for which reason the continued current should always be preferred in diseases of the spinal cord. The author's conclusions are these. 1. Spinal irritation is a functional disease, the diagnosis of which rests on a special group of clinical symptoms, although at present we are ignorant of the pathological actions. 2. The disease has its seat in the spinal medulla, and probably the anatomical alteration consists in intricate and subtle lesions of nutrition of the lumbar section of the cord. 3. Both forms of spinal irritation (the neurasthenic and the hyperæsthetic) improve rapidly, and are cured only by the application of the constant current.

G. D'ARCY ADAMS, M.D.

REVIEWS.

ARTICLE 1439.

Chapters in the History of the Insane in the British Isles. By D. HACK TUKE, M.D., F.R.C.P. London: Kegan Paul, Trench, & Co. 1882.

THIS volume is one that would at any time form a welcome addition to our literature; and the wonder is that hitherto the history of the insane in this country was unwritten, and, as a consequence, almost unknown. The reason, however, is not far to seek. Until the present century the public knew little and, if possible, cared less about the insane. In addition to this, the materials for a history were not readily obtainable. In former days, there were no commissioners' reports showing the state of insanity throughout the country, and the number and distribution of the insane. Moreover, not everyone had leisure and learning to search through old and scattered documents, and the ability to work into an interesting and connected narrative the raw materials selected therefrom. This work has now been accomplished; and the author has made the public his debtors by enriching the philanthropist, the medical man, and the antiquary, not merely with a book of reference, but with a volume of deep, almost fascinating, interest.

To William Tuke England owes the inauguration of the humane, and one might say common-sense, treatment of insanity, begun at the same time, and independently, in France by Pinel; and there is a certain fitness in the fact that this record of our forefathers' thoughtless inhumanity, and of their gradual improvement, should now be written by his great-grandson. Tuke's great merit was that he substituted as principles of treatment employment and kindness for punishment and fear. It may not be out of place here to remark that Tuke was a layman, like several other benefactors of the insane, including the venerable nobleman who has led the reforms and who has guided the progress of the lunacy legislation of the past half century. This fact should make us tolerant of a wholesome, though severe and not unfrequently unmerited, criticism from without.

The perusal of this history shows that we have good reason to congratulate ourselves on the progress that has been made, even within the memory of men still living. It shows further that we have not yet attained anything like perfection; that in many respects there is still room for improvement, and, best of all, it shows that new lines of amendment are sought for and are entered upon with an intelligent zeal that has no parallel in former times.

Though space forbids even the mention of numberless points of interest, the importance of one or two will sanction a word. One point refers to the suggestion made by Dr. Bucknill some years ago, that the State should undertake the care of the insane with two boards of management, one for paupers, the other for all above that class. The scheme cannot be discussed here; but it must be said that it looks attractive. The unsatisfactory manner of dealing with criminal lunatics is another matter that deserves examination and demands reform. Lastly, the inadequate provision for imbeciles and idiots stands sorely in need of remedy.

In conclusion, it may be observed that this book is marked with the qualities that characterise all

works by the same author. It is painstaking, it is readable, it is trustworthy, and it is useful as a work of reference. WILLIAM R. HUGGARD, M.D.

ARTICLE 1440.

Minor Gynecological Operations. By J. HALLIDAY CROOM, M.D. Second Edition. Edinburgh: E. & S. Livingstone. 1883.

THE second edition of this excellent manual is dedicated to the leader of the Edinburgh Midwifery School, Dr. A. R. Simpson. The work is admirably adapted as a practical guide to obstetric clinical clerks, house surgeons and physicians, as well as medical practitioners. The various physical signs, symptoms, and modes of dealing with the various conditions are clearly and concisely laid down. A very useful feature is the presence of prescriptions of uterine medicaments and applications. Dr. Croom adopts the lever theory which we believe to be the correct one, in reference to the mode of action of pessaries; and this part of the work is well illustrated by diagrams displaying the manner of introducing these instruments. It would save confusion, if in the next edition of his manual Dr. Halliday Croom were to give underneath each illustration the source from which it is taken. There are many reasons for doing this. The fact of so speedy a sale of the first edition testifies to the practical value of Dr. Croom's manual. It is well arranged throughout, and will, no doubt, retain the hold it has taken in the estimation of students and practitioners.

FANCOURT BARNES, M.D.

NEW INVENTIONS.

ARTICLE 1441.

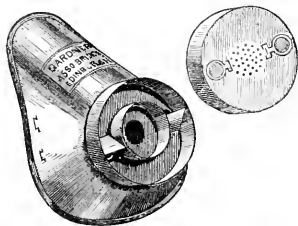
DR. J. GRAHAM BROWN'S NEW FORM OF RESPIRATOR FOR CONTINUOUS INHALATION.

DR. J. GRAHAM BROWN, in the *Edinburgh Medical Journal* for May 1883, writes as follows. 'The patterns of respirators suitable for continuous inhalation are very numerous, and among them it is not difficult to find several varieties which to a large extent fulfil one purpose, viz., the impregnation of the inspired air with whatever volatile medicament has been used to charge the instrument. None, however, so far as I am aware, perform the useful office which a simple "comforter" fastened across the mouth does—that of warming the air which is drawn through it into the lungs, the outgoing air heating the fabric to such an extent as to elevate the temperature of the ingoing air as it passes through the meshes of the material. It has always seemed to me that a respirator for permanent use ought to fulfil this purpose as well as the other, and so provide not merely a medicated atmosphere, but one which is at the same time agreeably warm—a very important matter in cases of phthisis. No doubt, in the less complicated forms of respirator, such as those recommended by Roberts, Saundby, and Burney Yeo, where the expired as well as the inspired air traverses the sponge, a certain amount of warming does take place; but with this arrangement there is necessarily combined a certain and considerable disadvantage in that the expired air

drives much of the vapour from the sponge away from the patient. It is very desirable that, except when the inspiration is drawn through the sponge, the latter should lie in what is practically a closed box, and the volatile vapour thus allowed to accumulate until it is drawn into the chest by the next inspiration. The respirator devised by Dr. Mackenzie allows of this by a valvular arrangement, the expired air passing out through two openings at the side guarded by valves opening outwards, while the inspiration is drawn through the sponge and through an orifice covered by a valve opening inwards. In this way, however, the warmth of the air leaving the chest is almost entirely lost so far as the sponge is concerned.

'To utilise the warm air expired so as to raise the temperature of the sponge, while at the same time it should not pass through it, seemed to me so important an indication that I have designed several forms of oro-nasal respirator with this object in view, sometimes making the expired air pass through a spiral tube enclosing the sponge in its coil, at other times following with some modification the design given here. I will, however, at present only describe one of these, which appears to me, on the whole, to be the most useful.

'The shape of the instrument is very much that of other oro-nasal respirators, fitting tightly over nose and mouth. The portion of the respirator farthest from the mouth has the form of a circular box, which is divided by an inner ring of metal into two compartments, which, when the lid or cap is in position (it has been removed in the accompanying diagram), are completely disconnected the one from the other. The inner circular compartment holds a sponge charged with the substance to be inhaled when the instrument is in use, and through it the inspired air alone passes. The air is drawn through the perforations in the centre of the cap, traverses the sponge, and enters the main cavity of the respirator through the circular orifice which is seen in the centre of the floor of the middle compartment. In order to prevent the regurgitation of air into this central compartment during expiration, there is placed over this orifice a valve opening inwards,



which is not shown in the drawing, as it lies on the side nearest to the patient. Encircling this lies an outer annular compartment, which is solely concerned with the expired air. The air enters it through two openings, one on either side, which in the accompanying drawing are almost hidden by two sloping partitions. On the lid or cap will be seen two corresponding orifices, each covered by a valve opening outwards. When this lid is properly fitted on, these two sets of openings nearly correspond; but the partitions already mentioned so

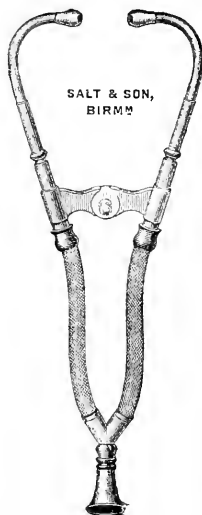
divide the compartment as to make the stream of out-going air on either side course half way round before it can escape, so that the air entering by the right hand inner orifice escapes by the left hand outer orifice, and *vice versa*. The two outside valves prevent air from entering during inspiration. By these mechanical arrangements the inner compartment which holds the sponge saturated with the drug to be inhaled is only traversed by air during the act of inspiration. Its temperature is elevated by the stream of hot air by which it is surrounded during expiration, and thus not only is the air before entering the air-passages warmed as it passes through the sponge, but the substance to be inhaled is thereby rendered more volatile, and therefore better fitted for the purpose for which it is intended.

'It is hoped that in this instrument the main conditions of a respirator for continuous inhalation are fulfilled. So far as I have had the opportunity of observing its action clinically, it has proved very satisfactory.'

These respirators may be obtained from Mr. Gardner, 45 South Bridge, Edinburgh.

SALT & SON'S NEW PORTABLE BINAURAL STETHOSCOPE.

THE improvement in this stethoscope consists in this usually awkward instrument being, for the first time, rendered really portable and handy. This is effected without loss of acoustic perfection by dividing the metal tubes into three pieces, each of which slides



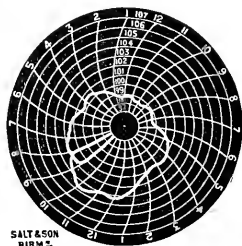
within the other tightly and without noise, like a telescope; the flexible tubes are connected by bayonet locks, which prevent them from falling out in use, as they frequently do in those of the ordinary form. The minimum size of the stethoscope when disconnected is 5½ inches, and the price 25s.3d. post-free.

MR. W. D. BOWKETT'S PATENT CLINICAL THERMOGRAPH.

FOR determining and recording on permanent diagrams all variations of temperature occurring in any patient during twelve hours. This instrument, of which an engraving is given (fig. 1), is the invention



of Mr. Bowkett, of the Leeds Fever Hospital, who has bestowed much time and labour on its perfection, assisted by Messrs. Salt & Son, of Birmingham, in whose hands it is now placed. A facsimile is here



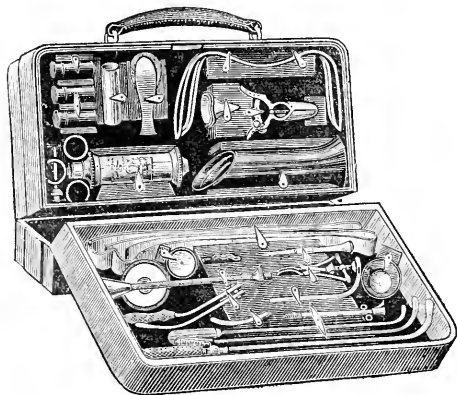
given (fig. 2) of a continuous record from a case of phthisis. This instrument is to be had of Messrs. Salt & Son. The price is 5*l.* 5*s.*

MR. WILLIAM THOMAS'S DIAGNOSIS CASE.

THIS is a case containing all the various instruments and appliances used in diagnosis, and is a desideratum for every medical man, whether he be consultant, specialist, or general practitioner.

The following is a list of contents:—Sims's Vaginal Speculum. Three Nested Fergusson's Specula, Bivalve Rectum Speculum, Nasal Speculum, Laycock's Spatula, Ear Syringe, Urinometer and Trial Glass, Vulcanite Case for Tests—viz. Caustic Potash, Cupric Test, and Nitric Acid, Three Nested Ear Specula, Cyrtometer, Spring Measuring Tape, Stethoscope, Ophthalmoscope, Exploring Trocar, Simpson's Sound, Male and Female Catheter combined, Exploring Sound, Clinical Thermometer, Thompson's Sound and Searcher, Spirit Lamp, with a vacant space for sundries. The

various articles are neatly arranged and securely packed in their places in a neat leather case. It



will be found equally useful in the consulting room or when carried by the practitioner on his round. The diagnosis case has been manufactured by Messrs. Salt & Son, Birmingham, and the price is 10*l.* 10*s.*

MISCELLANY

DR. FISCHER, of Trieste, has, according to 'New Remedies,' made experiments with cellulose as a dressing for wounds, and has found it, when moistened with warm water or some medicated solution, and afterwards covered with an impervious fabric, to be a most excellent application in all cases where heat and moisture appear to be indicated. Its chief advantages are—1. It is absolutely free from substances capable of exciting putrefaction. 2. It has a very low specific gravity. 3. It produces neither eczema nor erythema upon the epidermis. 4. It retains moisture and heat perfectly for more than twenty-four hours. 5. It never adheres to granulating wounds on the surface of the skin. 6. It adapts itself perfectly to the outline of the place of application. 7. It is much cheaper than other materials heretofore used for similar purposes. Dr. Fischer has used, so far, only plain water or weak solution of carbolic acid or iodoform in the case of suppurating buboes, and has obtained uniformly satisfactory results.

DURING the past summer the floating hospital of St. John's Guild made thirty-two regular excursions, on which 19,564 children and mothers were carried, and twelve extra excursions, on which 9,625 were carried, making a total of 29,189 persons who were given the benefit of sea air. The Seaside Nursery of the Guild at Cedar Grove, Staten Island, was also filled to its utmost capacity during the greater part of the summer.

MEDICAL COLLEGES FOR WOMEN IN CANADA.—The Toronto correspondent of the *New York Med. Record* says that for some time there has been a good deal of agitation in favour of medical colleges for women. During the session of last winter several ladies were attending the medical school in Kingston. Exception was taken by those ladies to some remarks made by the lecturer on physiology. The men in the class became noisy, and made statements that greatly offended the ladies. The students threatened to leave the school. After some negotiations

between the students and professors, the matter was adjusted by the latter agreeing to give separate instructions to the men and women. This difficult made it apparent that co-education would not work, and both Kingston and Toronto are on the eve of organising a college for the fair sex. Dr. Lavell has been chosen as Dean of the former, and Dr. M. Barrett of the latter.

THE MASON SCIENCE COLLEGE, BIRMINGHAM.—This institution, founded and endowed by the late Sir Josiah Mason, is doing good work in the midland counties in classical and scientific education. There are two departments: a Science Department, which comprises mathematics, physics, chemistry and metallurgy, zoology and comparative anatomy, botany and vegetable physiology, physiology, geology and mineralogy, and civil and mechanical engineering; and an Arts Department, in which the subjects taught are Greek, Latin, English language and literature, French, and German. The institution is of an elementary as well as of an advanced character. The College is open to females as well as males; and an examination of the list of students, published in the *Calendar*, shows that it is largely attended by ladies, several of whom occupy very honourable positions in the prize lists. In addition to the ordinary classes, there are evening classes in all the subjects. The lectures and practical instructions in physiology, chemistry, and botany are attended by the medical pupils of the Queen's College, and are recognised by the licensing bodies in medicine as part of the instruction given in the last-named institution.

THE CHAIR OF ANATOMY IN THE UNIVERSITY OF DUBLIN.—Dr. D. J. Cunningham, one of the professors of anatomy in the school of the Royal College of Surgeons in Ireland, has been elected to the professorship of anatomy and surgery in the School of Physic of the University of Dublin, vacated by the appointment of Professor Alexander Macalister to the chair of anatomy in the University of Cambridge. This causes a vacancy for a professor of anatomy in the College of Surgeons, the election to which, by the Council of the College, will probably take place on November 1. The emoluments of the professorship average 600*l.* yearly, and the professor is required to devote his entire time to the teaching of anatomy and practical histology.

TELEGRAPHY AND HEALTH.—The *Boston Medical and Surgical Journal* says that the conspicuous position in which telegraphers have been placed by the strike in America has served, among other things, to call attention to the great demands made by that calling upon the nervous system of those who follow it. The first-class operators all read by sound, and in a large office where a hundred or more receivers are all buzzing at once, the strain upon the organ of hearing as well as upon the cerebral centre of audition, protracted as it is through ten hours daily, is very great. Of course, in this as in every other occupation, it is true to a certain extent that 'custom makes it a thing of easiness,' yet to discriminate between the longer and shorter dashes in an instrument clicking at the rate of a very large number of words per minute involves, none the less, a very close exercise of the attention even when it is done only for the regular working hours of the day, while those operators who have been obliged since the strike to work double time have been excessively exhausted. The nervous and muscular energy expended by a rapid sender is perhaps still greater. It is on the whole surprising that 'writer's cramp' is not more frequent than it is among telegraphers. It is said that few operators are good for much after the age of thirty-five years.

THE NOXIOUSNESS OF FLIES.—In an article in the *Gazzetta degli Ospitali* for July 25, Dr. Grassi shows by several experiments the dangers to which we are exposed by flies. He has found unchanged in the feces of flies the eggs of various kinds of worms, including the tape-worm, the thread-worm, and the whip-worm, having previously

tempted the flies to a repast containing these delicacies. The intestines, therefore, of insects, not less than their feet and wings, may be carriers of infection. He invites the attention of naturalists to the subject. The problem he sets before himself is to destroy flies. He hopes to be able next year to lay a large number of additional facts before the public.

MARINE LABORATORIES ON THE COAST.—In connection with a report submitted in the Biographical Section of the recent Congress of the British Association for the Advancement of Science, at Southport, on the Scottish Zoological Station on the Moray Firth, the President (Professor Ray Lankester, F.R.S.) described the station as altogether unworthy of the name; it was simply a wooden shed to shelter a naturalist while making microscopical observations. The committee of the section had passed a resolution which would be placed before the General Committee of the International Fisheries Exhibition, requesting the committee to use a portion of the surplus they would have in hand at the end of the exhibition in establishing a marine laboratory. One of the most remarkable results of the Fisheries Exhibition had been that the conclusion had been arrived at, that they knew next to nothing of the habits and life-history of the most important fishes. It was almost impossible to have satisfactory legislation about oysters, mussels, much less about herrings, soles, and such fish, because so little was known about them. Now, if there were such a laboratory as was suggested, a great deal of knowledge would be accumulated, not in a year or two, but in the course, say, of ten years. They would then be able to see when fishing should and when it should not be allowed, what nets were injurious to the fish and what should be tolerated, what amount of fish should be taken, and so on. Professor Marshall, of Manchester, concurred as to the importance of establishing a marine laboratory. The great utility of such an institution would be, that the experiments would be carried out on a large scale by trained naturalists in a place properly equipped with the necessary apparatus. A station was being established at Granton, near Edinburgh, with the surplus funds of the Scottish Fisheries Exhibition; and there could be no more suitable application of a portion of the surplus funds of the International Exhibition than that suggested by the president. Professor Haddow, of Dublin, said what should be in the first instance provided was large tanks in which certain forms should be kept, workshops, and reagents. There should be a steam launch in connection with the establishment, several boats, dredging appliances, and nets. There should also be a naturalist in charge of the station, as local knowledge in dredging for animals was of the utmost importance. Though the utility of such an institution was only a secondary consideration, this was the view which appealed to the public, and there could be no doubt that we did not now reap from the sea its due harvest. It was the work of the naturalist to inquire, for instance, why it was that fish were now so scarce in Dublin Bay and on the eastern coast of Ireland. Mr. Carpenter said the American Fisheries Commission was not only investigating the natural history of the fishes, but they were also exploring the sea bottom along the sea board of the United States. He brought this matter before Mr. Evans, Hydrographer of the Admiralty, and suggested that the Admiralty should afford the means of making similar exploration by providing steam launches, dredges, and so on, and he had reason to believe that if a well-considered plan were presented by the association, the Admiralty would not be unwilling to give the funds and appliances necessary for the purpose. Professor Lankester pointed out that, while recognising the enterprise of the Scotch naturalists in establishing the station on the Firth of Forth, a much larger and more thoroughly equipped establishment was required. He did not know that they should raise the question of site, as each naturalist would have his own favourite locality. Probably, however, no more suitable situation for the laboratory could be found than Godlington, near Torquay.

The London Medical Record.

ARTICLE 1442.

LANDOUZY ON ANGINA PECTORIS REGARDED AS A SYMPTOM, AND IN ITS RELATION TO THE ARTHRITIC NEUROSES.

M. LANDOUZY (*Le Progrès Méd.*, 1883, Nos. 35 and 36), in a recent clinical lecture, reminded his hearers that he has often told them that angina pectoris should not be regarded as a morbid entity. Like epilepsy, he says, it is not an autonomous disease, and, like it, there is no such thing as angina pectoris as an unity. No doubt there is a dramatic completeness about an attack of this affection: retrosternal pain, anxiety, painful immobility, pallor, cold sweat, painful irradiations down the cervical and brachial nerves. This completeness attracts the attention of the patient and physician, so that it has come to be regarded as always presenting the same characters and bearing the same grave prognosis. But this involves an error, not only doctrinal, but of great practical importance. Just as there are epilepsies which depend on this or that condition, more or less transient or amenable to treatment, so there are anginas which may be due to transient or curable conditions.

This form of purely nervous angina is well attested, but deserves to be better known. These patients have more to complain of than to fear; the angina is one of the numerous phases of their neurosis, which may depart after a time never to return, is never dangerous to life, and depends on a mere functional derangement of the nervous system. A young girl in the ward St. Anne is, on the other hand, the subject of angina depending upon a serious rheumatic affection of the heart; and in the same category we must place a patient, M. F., aged 67, inveterately gouty, who has well-marked disease of the aortic valves, and in whom these attacks supervene whenever he walks up a steep incline, goes upstairs, walks against the wind, or experiences a sudden change of temperature. The peculiarity of this form is that the same occasioning causes always produce the same result; and these patients have not only cause to complain, they have everything to fear. In the other type, the occasioning causes are obscure, irregular in their effects, and instead of the kind just related are usually a little fatigue, an emotion, or some slight digestive trouble. No doubt, there is some pathological element which determines the occurrence within one minute of an attack which was absent a minute before. But this is often hard to define, as such attacks may come on when the patient is in perfect repose, sometimes in bed, and often during the first sleep. This peculiarity of attack, coming on during repose, or in bed, has been very noticeable in one of my cases, which presents many features in common with the facts recorded by Dr. Marie (*Revue de Méd.*, 1882, p. 339). This patient, an advocate, aged 33, sent for me three times at intervals of a few days, for attacks of angina, which came on in bed after he had dined

quietly at home. I was sent for under similar circumstances to see Miss X., aged thirteen, who threw her family into alarm at eleven o'clock at night. Finally, Madame G. had her first attack when quietly sleeping by the fire after dinner over a newspaper. It was in bed also that the attacks of angina used to occur in the patient with tabes, observed last March in M. Férrol's wards. But, while the attack appears at first sight to attack patients in the midst of perfect health, it is a mistake to suppose that it is an isolated symptom. Thus M. R.'s attacks were preceded by very prolonged oesophageal spasms, during which he complained of painful constriction of the throat; in the tabetic patient, the attacks were preceded by gastric crises; in Mdm. G.'s case, various nervous phenomena, nervous cough, tingling of the fingers, patches of anæsthesia and hyperæsthesia, dead fingers, frequent and copious micturition preluded the angina. It may sometimes happen that a patient with some slight cardiac lesion, who is also nervous, may have angina, which should be ascribed rather to the neurotic temperament than to the cardiac lesion. Thus Mdm. K. had a slight aortic obstruction; but after the menopause she became decidedly nervous, with sudden attacks of flatulence, outbursts of laughter and tears, oesophageal spasm, neuralgia, transitory paraplegia, palpitations, asthma, loss of memory, difficulty of articulation, slight convulsive seizures, &c. Upon these supervened an attack of angina, which, in virtue of her cardiac lesion, was alarming. The aortic lesion under treatment appeared to improve; but the neurasthenia increased, diabetes supervened, and then new attacks of angina appeared, and these were regarded as rather the results of the neuropathy than of the cardiac condition; and she was told that they were no more dangerous than the asthma, palpitation, neuralgia, &c., which had so long troubled her.

ROBERT SAUNDEY, M.D.

ARTICLE 1443.

PETRONE ON EXPERIMENTAL PHARMACOLOGY.

DR. L. M. PETRONE publishes some contributions to experimental pharmacology in the *Annali Universali di Medicina* for June 1883.

Action of the Salts of Sodium, Potassium, and Ammonium on the Unstriated Muscular Tissue of the Intestine.—The author's method of experiment is this. The animal (dog or rabbit) is narcotised by a hypodermic injection of ether (one to three grammes); the abdomen is opened and the intestines exposed. It is then plunged into a bath at 38° C. (100° F.) of sea-salt and water, of specific gravity 1.007. The intestines and the living tissues generally, find in this solution a neutral medium in which vitality is retained for a long time. The salts, in crystal or powder, are applied directly to the point of intestine to be experimented on. When a potassium salt is thus applied to any point of the large or small bowel, an annular constriction of the part ensues, easily propagated upwards or downwards, and lasting from two to seven minutes in the small intestine and from eight to twelve in the large. If the experiment be repeated with a salt of sodium, the gut contracts as before, but the contraction extends upwards, never downwards, for some distance; the contraction is so great that the gut, for 6 to 10 centimètres (about 2.4 to 3 inches), re-

sembles a slender cord. This tetanic state lasts from eight to ten seconds, sometimes longer; the peristaltic movement commences from above downwards; a fresh contraction generally follows, to again give place to peristaltic movements. This may happen several times. The sodium salt must be in contact with the intestine for at least two to five seconds; the contraction follows after an interval of five to twelve seconds. With potassium salts, these intervals are shorter. The action of the sodium salts is on the mesenteric ganglionic plexus.

Action of Morphia on the Intestine.—Nothnagel has shown that the action of morphia is not on the terminations of the splanchnic nerves, but on their central origin. Its action (resembling that of digitalis on the heart) in small doses is to stimulate the suspensory or moderator nerves (splanchnic); in large doses it paralyzes them. The author's experiments confirm this. If a small dose of morphia be given, the application of the soda salt causes only annular contraction like a potassium salt, and this not from paralysis of the nervous plexus of the intestine, but from stimulus to the suspensor or moderator nerves. If the dose of morphia be large enough to paralyse these nerves, the ascending contraction, suspended by the small dose, reappears with increased energy.

Action of Alum, Chloride of Calcium, Sulphates of Magnesia, Copper, and Silver, Acetate of Lead, Cotoin, Sugar, and Urea on the Unstriated Muscular Fibre of the Intestine.—Experimenting in the same way, the author found that alum causes a limited, slow, but always perceptible contraction, lasting for two or three minutes, reducing the capacity of the bowel by two-fifths of its circumference. No ascending or descending current was ever seen. Sulphate and chloride of magnesium caused very slight or no contraction. Chloride of calcium gave rise to a small contraction. Sulphate of copper and of silver caused a marked contraction, lasting for five minutes. Acetate of lead also. No contraction was caused by cotoin, urea, or sugar.

Cotoin.—The active principle of coto bark, which is derived from the *Palicourea densiflora*, or some plant belonging to the Lauraceæ or terebinthaceæ, when administered to the healthy man gives rise to no symptoms, and does not confine the bowels or interfere with digestion. The urine collected for twenty-four hours after a large dose (35 centigrammes) and evaporated in a water-bath, treated with ether and allowed to evaporate spontaneously, deposits whitish and brown crystals, which, when treated with a solution of soda, give a yellow colour exactly that of cotoin. The alkaline solution, treated with nitric acid, gives at once a characteristic blood red; with sulphuric acid, a yellowish brown. The author's researches show that cotoin does not prevent the development of putrefaction and the multiplication of bacteria, but it distinctly retards the processes of organic decomposition. Therapeutically, it is very useful in diarrhoea. It is best given as a powder in large doses (25 to 35 centigrammes) twice a day.

Action of Quinine on Sensation.—From numerous experiments on animals and man, Dr. Petrone concludes that quinine has an anæsthetic power over the centres and the peripheral sensory nerve-fibres. The anæsthetic action is only obtained when large doses are used, hypodermically or directly injected into the blood-current. The different cutaneous sensibilities (tactile, thermic, electric, of

pain, &c.) are abolished one after the other in no fixed order. Elevated temperature in animals rendered the anæsthetic action more marked. Of the experiments on man we quote the following. In a healthy man, aged 20, half a gramme of bisulphate of quinine was injected. Tactile sensibility, after forty minutes, was found to be diminished in the face and in the lower limbs. After one hour, the anæsthesia became profound; after two hours it began to disappear. In another man, aged 36, half a gramme of bisulphate of quinine was injected. Thirty minutes afterwards tactile sensation on the face, hands, and arms was much weakened; fifty minutes after the injection, the anæsthesia was profound, and began to disappear after two hours. In a man with neuralgia of the third intercostal space there was marked hyperæsthesia; tactile, dolorific, thermic, and of place. Half a gramme of bisulphate was injected in three places. Ten minutes later, cutaneous sensibility was weakened; twenty minutes after injection, there was complete anæsthesia of the skin of the affected part, which was maintained for several hours. In a patient with supra-orbital neuralgia, the injection of half a gramme of quinine in two places was followed by profound anæsthesia in twenty-five minutes. Another patient had neuralgia of the sixth and seventh left intercostal space: the skin was markedly hyperæsthetic. Twenty-five minutes after the injection, complete anæsthesia of thermic and tactile sensation followed.

G. D'ARCY ADAMS, M.D.

ARTICLE 1444.

UNRUH ON MYOCARDITIS IN DIPHTHERIA.

THE author (*Jahrbuch für Kinderheilkunde*, Band xx., Heft 1) has met with myocarditis in eight out of 237 cases of diphtheria, and also in one case of scarlatina. Of these nine, six were boys. Two of the children were 6 years old, two 11 years old, and the remaining five were aged 7, 8, 9, 10, and 12. There was nothing in the history of any of the cases to account for an affection of the heart. The diphtheria was always of a severe kind, and involved the uvula and pillars as well as the tonsils; the false membranes were fetid and of a dirty greenish colour, and left deep ulcers after their removal. The heart affection began to make its appearance as soon as the diphtheria had ceased to spread. This was from the seventh to the fourteenth day, except in one case, where it was delayed until the twentieth day. The first symptom of the heart being involved was furnished by the pulse, which suddenly became small and empty. Its frequency was at first unaltered, but, after twenty-four or thirty-six hours, was greatly increased (160–180); at the same time, the pulse became irregular. Both these qualities were greatly aggravated by changes of position. The heart's impulse was, in this stage, perceptibly and palpably weaker, and a little to the right of its normal situation. The heart's dulness extended in all the cases beyond the midsternal line, and in two (one being the fatal case) it reached a finger's breadth beyond the right sternal margin. With convalescence, it returned to nearly its normal dimensions. On auscultation, the first sound of the heart was diminished in intensity; and, when the complaint was at its height, a blowing sound, like a chlorotic murmur, was heard. In only one case was

there any præcordial pain. No information was derived from the thermometer. No purpura or other hæmorrhage was observed in any case; and, somewhat remarkably, dyspnoea was absent in all. The patients were drowsy and apathetic, indeed too much so to ask for nourishment. Albuminuria was present in all. The albumen first appeared when the diphtheria was at its height; then it subsided, but reappeared in greatly increased quantity soon after the heart-affection showed itself. At the same time the urine diminished in quantity, and œdema, with in one case ascites, set in. The first symptom of amendment was the lessening of the albumen.

Of the nine children only one, a boy aged 11, died. The heart in this case, examined *post mortem*, exhibited a number of rather dark-coloured deposits of various sizes, some imbedded in normal muscular tissue, others in tissue which showed fatty infiltration or degeneration. The fasciculi were separated by spaces occupied by numerous cells. The striping was faint or imperceptible. All of these changes were more marked on the right side. There was no extensive fatty degeneration of the heart.

The first few cases were treated with digitalis or ergot, but neither drug had much effect. Camphor was then tried, and with marked benefit. It was given in combination with perchloride of iron. Stimulants were freely administered. The author anticipates the objection that the cases which recovered might have been simple neuroses of the heart, and founds his strongest argument against it upon the widening of the præcordial dulness. But this was marked in two cases only.

[The author would have done better to have given separate notes of the fatal case. But the weakest part of the paper is that which relates to the necropsy. We are not informed upon the following points. 1. Was the heart dilated or enlarged? 2. Of what nature were the 'numerous cells'? 3. Did these cells represent the structure of the dark deposits? 4. Were the spots found in any other organ? In the absence of information upon these points, the diagnosis of even the fatal case cannot be unhesitatingly concurred in.—*R. P.*]

RALPH W. LEFTWICH, M.D.

ARTICLE 1445.

PILCHER ON LATERAL CLOSURE OF WOUNDS OF VEINS.

DR. LEWIS S. PILCHER, of Brooklyn, in a paper on 'The Lateral Closure of Incomplete Vein-Wounds' (*Annals of Anatomy and Surgery*, August 1883), first alludes to the results of some experiments made during the year 1882 on deligation of veins with aseptic catgut and under other antiseptic conditions. In none of these experiments did a thrombus form on either side of the ligature, which was applied in the continuity of the vein, except in one case, in which special effort was made to secure one by applying a second ligature to the vein swollen with blood, a little more than an inch above the first. The series of specimens obtained in these experiments, when examined, demonstrated that marked proliferation of the cells of the tunica had been excited, the activity of this proliferation having been greatest at the seat of constriction. The accumulation and confluence of the masses of cells in the *cul-de-sac* formed by the constriction of the vein, the subsequent extension into them of the

capillaries, and the consequent conversion of the new tissue into connective tissue, were the successive steps by which permanent closure of the tied veins was effected. A wound in the wall of a vein determines on the borders of such wound the same circulatory and nutritive changes as follow similar injuries to other organs.

The practical difficulties which may complicate the course of the wound in the vein and render abortive the natural attempts at repair, spring from the special function and anatomical character of the organ. In the first place, the pressure of the blood constantly tends to separate the edges of the wound; and, in the second place, the thin walls of a vein do not present sufficient surface for securing perfect and reliable apposition of the edges of the wound. In the case of large venous trunks, even if such apposition were possible, the delicate cicatrix would not be able to sustain the pressure of the blood-column filling the interior of the vessel. To assist him in overcoming these obstacles, the surgeon finds an excessive exudative activity in the adjoining lining membrane, excited by the injury, which may be taken advantage of to secure the required extent of surface. When, therefore, it is sought to bring about by ligature the certain accomplishment of the conditions by which a vein-wound shall be closed, the apposition of the cut edges is disregarded, and the apposition of the adjoining intima sought for. It is important to remember, Dr. Pilcher points out, that the proper relation of a ligature to the healing process that closes an aperture in a blood-vessel, is simply that of maintaining apposition. Such ligature should be unirritating, should not interfere with union by first intention, either of the wound in the vessel or of the wound in general, and should be capable either of remaining passive in the tissues in which it is imbedded, or, preferably, of becoming spontaneously absorbed after its function has been accomplished. These considerations, Dr. Pilcher states, have an important practical application in determining the propriety of substituting a lateral ligature, or a lateral suture, for ligatures encircling the entire vessel, in the treatment of wounds involving but a part of the wall of a great vein.

Dr. Pilcher discusses in the next place the extent to which a ligature or suture not encircling the whole tube can be relied upon to satisfy the different indications for treatment in the case of wounds of large veins. The primary escape of blood may be arrested, when an incomplete wound of a large vein has been sustained, by grasping the edges of the wound by forceps, and throwing a thread around the adjoining parts, as the opening of a bag is encircled and closed by a string. This constitutes *lateral ligature*. The edges of the wound may be permitted to remain in the grasp of the forceps, which, as a clamp, may retain them in apposition till primary adhesion of the apposed tunics has taken place with sufficient firmness to prevent further escape of blood. This constitutes *lateral force-pressure*. If the wound be a longitudinal slit, too extensive to be grasped by a single ligature, or if the wall of the vein be not sufficiently lax to permit its being puckered up enough to be securely grasped by the ligature, further hæmorrhage may be prevented by sewing up the wound by a continuous suture. Lateral closure of a wound in a vein will, according to Dr. Pilcher, effectually arrest primary hæmorrhage. If this closure be effected by an unirritating material and with adequate anti-

septic treatment of the general wound, it will not expose the patient to the dangers of secondary hæmorrhage; but if it be practised with an irritating thread and without adequate antiseptic precautions, it is more likely to be complicated by secondary hæmorrhage than the ordinary encircling ligature. In 1882 Braun compiled and published twenty-nine cases of lateral closure of veins, twenty-four by ligature, three by force-pressure, and two by suture (*Archiv für Klin. Chirurg.*, Band xxviii., 1882). Successful results were obtained in sixteen cases of ligature, one of force-pressure, and one of suture. There were nine deaths—two by pyæmia after force-pressure, seven after ligature, four of which were from hæmorrhage and three from pyæmia. The two cases of lateral suture reported by Braun were: one case in which Czerny performed this operation on the internal jugular vein, but was compelled by the recurrence of hæmorrhage to resort to acupressure, and one case, more fortunate in its course, in which the femoral vein was thus closed by Schede. To the cases collected by Braun, nine other cases of lateral closure of venous veins may be added from American surgical literature—one of the femoral and eight of the internal jugular—all of which terminated in recovery. Sufficient experience of the lateral closure of wounds in veins has thus been now gathered to afford some grounds upon which to estimate its value, and to indicate its limitations, its possible dangers, and the precautions which should attend its use.

The advantages which attend the method of lateral closure of vein-wounds are these: it may be more quickly done; it demands less extensive dissection and disturbance of the neighbouring tissues; it increases the prospect of obtaining union throughout the wound by first intention; and, finally, it preserves intact the function of the vessel. Lateral closure has been condemned by most surgical writers in the past, on account of the danger of secondary hæmorrhage to which its use was presumed to expose the patient; but Dr. Pilcher asserts that the objection upon the score of probable secondary hæmorrhage, is an objection to a particular kind of ligature-material and of treatment of the general wound, and not to lateral closure. A thread that must 'cut through' and become detached, is a source of danger, greater in the case of its application to the side than to the circumference of a vein; and whether such a thread should ever be applied laterally, must depend on whether the importance of maintaining intact the function of the vessel as a blood-conduit is great enough to justify the taking of some risk to secure it. From this point of view, a marked difference exists between the internal jugular vein, and the trunk-veins at the roots of the extremities. The risks of the use of a septic ligature, applied laterally, are greater in the case of the internal jugular than in the case of the axillary or femoral veins; whilst the free collateral circulation through the intracranial venous sinuses, the superficial veins of the head and neck, and the sinuses of the spinal canal, prevent serious discomfort from being experienced from the obliteration of the first-named vessel, notwithstanding its size. The axillary and femoral vessels, on the other hand, cannot be obliterated without serious disturbance of the circulation of the corresponding limbs. In the case, therefore, of these latter veins, the importance of preserving them from obliteration, and the more favourable conditions which they present to diminish

the risks of disturbance to the healing of wounds in their walls, while the current of blood is active within them, justify the assumption of the risks of their lateral closure, even without the advantage of aseptic thread or attendant antiseptic treatment. The introduction of the antiseptic method of treating wounds, and the use of aseptic ligature-materials, render necessary a reconsideration of our old teaching as to the propriety of the lateral closure of incomplete wounds of veins. By primary union or union by granulation without septic disturbance, laterally closed vein-wounds are secured against those disturbances which have endangered their course in the past, and the liability to which has determined the condemnation of the lateral method of treatment.

In conclusion, Dr. Pilcher submits the following rules of practice for the guidance of surgeons.

1. 'In every case of incomplete wound of a vein, attempt should be made to secure the lateral closure, and the preservation of its functional integrity, provided an unirritating ligature or suture material can be obtained, and the wound can afterwards be kept from septic infection.
2. In cases of incomplete wound of a trunk-vein, at the root of an extremity, the lateral closure of the wound should be attempted, even though an ordinary thread be necessarily used, and perfect antiseptic measures be impracticable.
3. In cases of incomplete wound of an internal jugular vein, when ordinary thread must be used for its treatment, and perfect antiseptic cares are impracticable, the vein should be ligatured in its circumference above and below the wound, and the division of the vessel made complete.'

W. JOHNSON SMITH.

ARTICLE 1446.

MURATOFF ON THE TREATMENT OF NEGLECTED ABORTION.

IN the *Mejdunarodnaia Klinika*, May 1883, pp. 296-309, Dr. A. A. Muratoff, of Moscow, discusses the management of those cases of abortion in which some portions of the ovum are retained within the womb, and undergo there decomposition, threatening septicæmia. Of course, there may be no question of what to do in such cases. The obstetrician must remove the remnants of the ovum as quickly as possible, and disinfect the uterus. But how is this to be done? How is the uterine cavity to be reached, with its dangerous contents, through the os, which is usually found closed? Of all the means proposed and used for dilating the cervix in similar cases, sponge-tents are regarded by the author as the most harmful, for, 1. they act too slowly when every minute is precious; 2. any discharge absorbed by them rapidly undergoes putrefaction; and, 3. they cause irritation of the cervical walls. Laminaria digitata, also, acts very slowly; besides, it easily falls out from the cervix. Tupelo-root dilates the os much more rapidly than sponge or laminaria. Thus, according to Dr. A. Solovioff, while a tupelo-tent reaches its maximal swelling in four hours, a laminaria-tent, of an equal size, does so only in fifteen to twenty hours (see his article in the *Mediz. Oberz.*, May 1880; but it is very difficult to find tupelo-roots of larger size).

Basing his arguments on five years' experience, Dr. Muratoff emphatically recommends dilatation of the uterine cervix by means of a metallic dilator.

As the best instrument of this kind, he regards Sims's three-valved dilator. Dr. Muratoff's practice is as follows. After washing out the vagina with 2 or 3 per cent. of carbolic solution, he freely anoints the instrument with 4 per cent. of carbolised vaseline; he introduces its valved end into the cervix, and begins to turn the screw which serves for opening the valves. The first three or five full turns are made without any pause; but from the moment when the patient has felt a sharp pain, he proceeds with dilatation very slowly, making only half a turn at a time in every ten minutes. As a rule the valves are open to their utmost extent in three or four hours. The dilator is left in this condition for a quarter of an hour, and then closed and withdrawn. During the process of dilatation, the author makes repeated intra-uterine injections of a warm carbolic solution, through a double-current catheter. After the withdrawal of the instrument, bimanual expression of the uterine contents is tried. If one attempt be not sufficient, the remnants of the ovum are without any further delay removed by one or two fingers introduced into the womb.

The writer eulogises the results given by this method of gradual (but still relatively rapid) dilatation in *all* cases of neglected abortion. The presence of any inflammatory processes in the parenchyma of the uterus or in the vicinity of the organ does not contra-indicate the use of metallic dilators; on the contrary, it vitally indicates instrumental dilatation. The latter inflicts no violence on the cervical tissues, and, accordingly, never gives rise to any considerable reaction. In a few cases, indeed, Dr. Muratoff saw a slight temporary rise of temperature and some increase of pain about the sexual apparatus after the operation. But in a great majority of his cases the dilatation, with subsequent emptying of the womb, was immediately followed by a marked improvement both of the local and of the general conditions: the patient's temperature steadily and quickly fell to the normal level, rigors and pain disappeared, the uterine discharge rapidly lost its offensive odour, and the uterus underwent uninterrupted involution.

V. IDELSON, M.D.

ARTICLE 1447.

RIEDEL ON THE TREATMENT OF FÆCAL FISTULA OF INFLAMMATORY ORIGIN.

DR. B. RIEDEL has lately recorded (*Centralbl. für Chir.*, No. 14, 1883) two cases of fecal fistula of inflammatory origin treated with success by operation. Fæcal fistula of such origin, being of much less frequent occurrence than fistula resulting from strangulated hernia, has not, Dr. Riedel points out, engaged the attention of surgeons so much as the latter variety. The subject of the first of these cases was a young man, aged 17, who six years before he came under the author's notice had a sudden attack of suppuration in the right iliac fossa. After free discharge through an incision of much ill-smelling pus, a fistula had formed which remained open for six months, then repeatedly closed and re-opened, and finally remained opened for about twelve months. There was an opening about half-an-inch above Poupart's ligament, and about one inch and a quarter to the inner side of the antero-superior spine of the ilium, through which, after some dilatation, the finger could be passed along a canal lined by mucous

membrane into intestine. After an unsuccessful attempt to close the opening by excision of the fistula and bringing the raw edges together by sutures, the affected portion of intestine, at a subsequent operation, was freely detached from the muscular structure of the abdominal wall, brought well into view, and the orifice in its coats closed by bringing together with sutures of very fine silk the edges of the serous layer. Notwithstanding a free discharge of fecal matter from the seat of operation on the sixth day, the wound gradually closed, so that three months later the patient had completely recovered. In the second case a similar, though much more extensive, operation was performed on a man, 25 years of age, who presented a fecal fistula in the right iliac fossa, which had followed incision into a very large pelvic abscess, the purulent contents of which on the second day after this incision were found mixed with fecal matter. After the surface of the affected portion of intestine had been exposed by a very large wound, about ten inches in length and six inches in breadth, a double fistula was observed. At a subsequent operation, the perforated portion of intestine was separated from the surrounding parts, the two fistulous orifices converted into one by division of the intervening bridge, and the peritoneal edges of this large opening brought together by sutures. In this, as in the former case, there was after the operation a fecal discharge from the wound, but here it was very slight, and ceased at the end of the third week.

Dr. Riedel states that in neither of these cases could the starting point of the lesion be clearly made out. As there was no indication of previous intestinal disturbance, it cannot be assumed to have been typhilitis. Although the view of a glandular origin might be opposed by the fact that no lesion was observed on the lower limbs or on the genitals, still Dr. Riedel is disposed to think that the abscesses in these two cases, as in many instances of acute psoas abscess, really started in suppuration of some pelvic glands; and it is suggested that this glandular mischief may have been started by abrasion or fissure of the mucous membrane of the anus. Such pelvic abscess may burst at an early date into the gut and the pus be discharged by the rectum, whilst the passage of fecal matter into the cavity of the abscess may be prevented by a valvular disposition of the margins of the intestinal opening. In the first case, the fistula had at one time remained closed for two years, although during this period there remained a large opening in the wall of the intestine. This opening must during this time have been hermetically closed by the firmly applied superjacent skin.

In dealing with a fecal fistula of inflammatory origin Dr. Riedel exposes the seat of perforation, sets free the affected portion of intestine so as to be able to drag this to the surface, and then closes the orifice by sutures. He doubts whether the peritoneal cavity was opened in either of his two cases. No loops of smooth intestine were observed. Probably around the seat of the fistula in each case there had been formed, between the intestine and the abdominal wall, thin membranous adhesions which allowed the perforated portion of intestine to sink back into the abdomen, and yet prevented the passage of fecal matter into this cavity. In Dr. Riedel's cases, the conditions for the success of his operative treatment were favourable, as the adhesions between the intestine and the anterior abdominal wall were of slight extent. In an instance of wide

union of these structures, it would be necessary to have recourse to resection of the perforated portion of intestine.

W. JOHNSON SMITH.

ARTICLE 144S.

GODLEE ON THE TREATMENT OF EMPYEMA.

IN a recently published paper 'On Some Points in Connection with the Anatomy of the Pleura and the Treatment of Empyema' (*Annals of Anatomy*, July 1883), Mr. Rickman J. Godlee, of University College Hospital, discusses briefly at first the anatomical extent of the pleural cavity. The upper limit and the anterior border of the pleura are, it is stated, easily ascertained and well-known; whilst, with regard to the lower limit of this membrane, inaccuracy is common, and some degree of uncertainty exists. It reaches considerably below the normal lung, but not so far down, for the most part, as the lower border of the thoracic parietes. Behind, however, it corresponds most frequently to the head of the twelfth rib; being seldom higher, but not unfrequently much lower, than the eleventh dorsal spine, the variation depending principally upon the length of the twelfth rib and the corresponding length and position of the ligamentum arcuatum externum. This point, the author remarks, can hardly have any practical bearing upon the question of tapping the pleural cavity, as no surgeon would be likely to make even a second opening so far down; but it does bear upon the advisability of the removal of the twelfth rib in order to gain more room in difficult cases of lumbar nephrectomy, as it suggests the danger of opening the pleura in the course of such procedure. The actual line of the lower limit of the pleura at the side and anterior part of the chest is given with great minuteness by Luschka in his work on the topographical anatomy of the human thoracic organs. This minute description is summarised as follows by Mr. Godlee for practical purposes. Starting from the eleventh dorsal spine, the line passes horizontally outwards till it reaches the lateral part of the chest: it then ascends gradually, being distant in this position about two or three inches from the lower margin of the thorax, and then passes behind the seventh costal cartilage to the sternum, extending usually, as it passes towards the front, a little lower on the left than on the right side.

Mr. Godlee points out that selection of the lowest part of the pleural cavity for incision in opening an empyema does not afford the best possible drainage, and is open to very serious objections. In children, or where the chest-walls are not very substantial, an incision in the back is preferred, directly below or a little outside the level of the angle of the scapula, in the seventh, eighth, or ninth interspace, as the peculiarities of each case may make most desirable. If, however, the chest-walls be very muscular, it is thought that probably no spot would be more suitable than the fifth or sixth interspace immediately in front of the posterior fold of the axilla. Alluding to the statement of Mr. John Marshall as to the very frequent occurrence of spontaneous rupture of empyema at the same point in the thoracic wall—namely, just outside and below the junction of the fifth rib with its cartilage, and to the view that it would be well for the surgeon to imitate nature by selecting the same spot for incision, Mr. Godlee

replies that Marshall's spot, though perhaps a common, is by no means the invariable point of rupture; and he seems inclined to hold that the second or third interspaces in front are perhaps the most usual seats of this perforation. If the obviously unsuitable positions be avoided, it is, Mr. Godlee believes, of far greater importance than the mere determination of the locality for the incision that the surgeon should follow a method of paracentesis that ensures a thoroughly free opening into the chest, and the certainty of free passage of the drainage-tube. In children he has, for some time past, adopted, as a routine practice, the removal in all, or almost all cases, of a portion of rib. It is thought that it would be well to adopt the same plan in dealing with many cases of adults, since it is common for caries or necrosis of one or both ribs to occur when the incision has simply passed through an intercostal space, and that it is not by any means very rare to find, in a chronic case, that the ribs have become united together by means of two transverse bars of bone, one on each side of the sinus, so that the track passes through a narrow osseous ring.

As to the dressing, Mr. Godlee is convinced that the strict Listerian antiseptic plan is the best. It is thought that surgeons often make a mistake by keeping the drainage-tube in for too long a time. There is a very considerable absorbing faculty in the pleura, even after its contents have become purulent; and it is not therefore necessary, as in an ordinary abscess, to keep the tube until the cavity is reduced to a mere sinus. The advantage of allowing the opening to close as soon as ever the amount of secretion is so small that the absorbing power of the pleura may be counted upon to remove it, consists in the fact that two fresh agents are brought to bear upon the lung to cause it to expand; namely, this absorbing power, and the suction exerted by the chest-walls in the movements accompanying respiration. The antiseptic dressing should consist of a larger mass of gauze than is used in ordinary cases, and, after surrounding the trunk with a suitable number of circular turns of a soft muslin bandage, a piece of elastic webbing one inch wide should be carried round the upper and lower borders. If a turn of the muslin bandage be then taken over one shoulder and under the perineum, and then back to the shoulder again, and secured to the upper and lower parts of the dressing in front and behind, there will be no chance of its slipping either up or down. With regard to the spray, Mr. Godlee points out that, if it be advisable to employ it at all, an empyema is *par excellence* the condition in which its use would seem most rational, for rapid sucking in and out of air during the dressing can hardly be prevented. If the case be treated antiseptically, it is seldom necessary to wash out the pleura.

W. JOHNSON SMITH.

ARTICLE 1449.

SABUCEDO ON THE TREATMENT OF YELLOW FEVER BY DISINFECTANTS.

DR. S. SABUCEDO, of Havana, contributes to the July number of the *Revista de Medicina y Cirujia practica* an interesting article on the treatment of yellow fever by disinfectants. He considers it proved beyond doubt that yellow fever is contagious, defining it as an infectious and contagious pyrexia, having a high and pathognomonic temperature curve in the

first three or four days, oscillating commonly morning and evening between 39° , $39^{\circ}5$; $39^{\circ}5$, 40° ; $40^{\circ}05$, $40^{\circ}5$, 41° Cent., very rarely passing this, and rarely falling below 38° or $38^{\circ}5$ Cent. in the evening. On the fourth or fifth day a marked remission is observed, and the temperature falls to 38° or $37^{\circ}2$, or to the normal, or even below, one of two things then happening; either the disease terminates favourably on the fifth or sixth day, or the temperature rises to the level of the first oscillations, or even higher, the disease declaring itself in a grave form, hæmorrhagic, cholæmic, or uræmic, which rapidly kills the patient on the fifth, sixth, seventh, or eighth day. Another fact, important in diagnosis and prognosis, known to all who have watched the disease, is the presence of albumen in the urine. This symptom may appear in the first period of the disease, and the date of its appearance, its quantity and quality, are of great value in prognosis. As a rule, the earlier the albumen appears the more serious the case, especially if it be abundant, and if, on the addition of a drop of the reagent, it fall at once to the bottom of the test-tube like heavy drops of wax. On the other hand, if it appear late and be small in quantity and flocculent, the prognosis is favourable. With early abundant albumen appear other grave symptoms, hæmorrhagic, cholæmic, or uræmic.

Drs. Carmona and Freire have found in all cases of yellow fever in the vomit, in the blood, urine, and all the organic liquids, microscopic living organisms. Carmona calls them '*Peronospora lactea*,' Freire '*Cryptococcus vegetalis*.' These organisms constitute part of the fauna of the countries in which yellow fever reigns endemically (Gallardo); and this explains why the disease has its cradle in certain tropical zones of America, and accounts for the transmissibility of the disease to temperate climates when the climatic conditions are favourable, as in the epidemics of Barcelona, Cadiz, and Gibraltar, and the almost annual epidemics of some of the Southern States. Yellow fever, then, is a parasitic disease, of high pyrexia, of special and pathognomonic curve, of rapid course, and causes death by profound attraction of the blood and tissues. Such being the genesis, etiology, and symptoms of yellow fever, the treatment indicated must be antithermic and parasiticide.

From July 17 to October 10, 1882, 164 patients attacked by yellow fever were admitted to the Integridad Nacional Hospital of Havana. The diagnosis rested on the symptoms of the first period; violent headache, rachialgia, high fever, flushed face, injected conjunctiva, languid and lachrymose expression, tongue furred, or clean and red with hyperæmia of the gums; the patient being usually able to fix the precise moment when he began to feel ill, the initial shivering, and the fact of the patient's recent arrival in the island. The treatment was commenced by an emetic of ipecacuanha, or of oil of almonds, with lemon-juice; afterwards a purgative dose of citrate of magnesia. Two mixtures were given—one of 4 grammes of salicylate of soda, in 100 grammes of water; the other of 1 gramme of carbolate of soda, in 100 grammes of water. Of these, one tablespoonful was given every hour alternately. Free sweating generally appeared immediately with a fall of temperature, which gave great relief to the patient. In favourable cases, the fever terminated in the afternoon of the third day, or in the morning of the fourth day. In grave cases the temperature rose again, but did not reach the

original level. Albumen appeared in the urine, which, however, continued abundant. Of the 164 cases 91 terminated favourably, with the symptoms of the first period only, and without the appearance of albumen, and made a good convalescence; 73 cases passed to the second stage, presenting various symptoms—albumen in the urine, gingival hæmorrhage, black vomit, melæna, other hæmorrhages, epistaxis, &c. Of these 73 nine died, or 12.3 per cent. In former years, with ordinary treatment, 30 to 50 per cent. died in the same hospital. These results are very encouraging. The author hopes this year to continue his researches, and to give a more exact and detailed record of cases.

G. D'ARCY ADAMS, M.D.

ARTICLE 1450.

VOGT ON THE ACTION OF FREE HYDROCHLORIC ACID IN GASTRIC DIGESTION.

DR. E. VOGT gives the following interesting summary (*Le Progrès Méd.*, No. 27, 1883) of the recent literature of this subject.

It is well known that during gastric digestion a certain quantity of free hydrochloric acid makes its appearance. Certain recent German publications attribute to the absence of this acid, in certain cases, a great symptomatic importance. Von der Velden (*Deutsches Archiv für Klin. Med.*, Band xxiii., p. 369), having procured by Kussmaul's pump some of the stomach contents during digestion, submitted it to various reagents, in order to detect the free hydrochloric acid. He found that by means of tropæoline (OO), a yellow colour, which changes to red in the presence of mineral acids, but is unchanged by organic acids, the presence of free hydrochloric acid could be readily discovered. Working with this method, he arrived at some interesting results; he found (*Berliner Klin. Wochenschr.*, 1877, p. 613) that in typhus the hydrochloric acid disappeared during the course of the malady, to reappear during convalescence. In dilatation of the stomach the acid was never absent, while in carcinoma he could never discover the least trace. This latter phenomenon could not be ascribed to mere weakness, as it was not present in most advanced cases of marasmus apart from carcinoma; nor could it be attributed to any chemical action of the cancer-juice, as it occurred in non-ulcerated scirrhus. In one case, by this means, carcinoma was diagnosed in the absence of all other symptoms, and was confirmed on *post mortem* examination. In another case of suspected cancer the reaction negatived the idea, which was also confirmed by necropsy. In a case of cancer of the liver, the stomach being intact, the acid did not disappear.

A new series of researches (*Deutsches Archiv für Klin. Med.*, Band xxv., p. 105) showed that the saliva, which reaches the stomach mixed with the food, continues to act on the starch until the free hydrochloric acid appears, which is one and a half to two hours after the meal—a fact already observed by Lehmann (*Handbuch der Phys. Chemie*, p. 154, 1854). Consequently, the gastric digestion may be divided into two stages: the first, during which the saliva continues to act; and the second, in which free hydrochloric acid is present, and in which the principal formation of pepsin takes place.

Ewald (*Zeitschr. für Klin. Med.*, Band i., p. 619)

has objected to some of these conclusions. He finds that the presence of albuminates and blood, &c., interfere with the tropeoline reaction; that in many cases of carcinoma the reaction persists; and that the two digestive periods are not so distinctly separated, but that the diastatic action is rather diminished than suppressed by the rise in acidity of the gastric contents.

Von der Velden (*Deutsches Archiv für Klin. Med.*, 1880) has replied by throwing doubts on the purity of Ewald's chemical reagents. He admits that there is no specific action in carcinoma, but thinks it a subject for inquiry under what circumstances the acid disappears. (In a letter to Vogt, Von der Velden admits having met with cases of cancer in which the reaction was present.)

Edinger (*Berl. Klin. Wochens.*, 1880, No. 9, 117) found that the free acid was absent in two cases of amyloid disease of the stomach, and attributed it to endarteritis obliterans. He obtained the gastric contents by enclosing a small sponge in a gelatine capsule, which being attached to a thread, is swallowed by the patient; at the end of half an hour the capsule is digested, and the sponge being withdrawn, is soaked with gastric contents, which may be submitted to the necessary tests (*Deutsches Archiv für Klin. Med.*, Band xxix., p. 315: 1881).

Uffelmann, in his observations on a case of gastric fistula (*Deutsches Archiv für Klin. Med.*, Band xxvi., p. 431) preferred methyl violet to tropeoline. Edinger (*loc. cit.*) objects to this new reagent.

Sassersky found, in nine febrile patients, that the hydrochloric acid disappeared when the fever was accompanied by dyspepsia.

ROBERT SAUNDEY, M.D.

ARTICLE 1451.

MARTIN ON ACTION OF ALCOHOL ON THE HEART.

PROFESSOR MARTIN, of Johns Hopkins University, writes as follows in the *Maryland Medical Journal* for Sept. 1883.

Although the physiological effects of alcohol manifest themselves in many directions, we can only hope to arrive at valid conclusions by taking up the questions one by one. Our own researches made on dogs have been confined to a quite limited field—viz, what is the direct and immediate action of alcohol upon the heart, both as to its rate of beat, and as to the work done by it in a given time. Chronic abuse of alcohol of course affects the heart; but our inquiry has hitherto been limited to the immediate action upon the heart of a moderate quantity of pure alcohol added to the blood flowing through it, the heart being put entirely out of control by extirpation of the nerve-centres, and isolated from all other organs but the lungs. In other words, our problem was: What is the immediate action, if any, exerted upon the heart by a single dose of ethylic alcohol?

As regards action upon the pulse-rate, our experiments confirm those of Zimmerberg and others; alcohol in doses not directly poisonous does not affect the rate of beat of the heart.

As to the influence of alcohol upon the work done by the isolated heart we have, however, obtained some results which we believe to be new.

Our method of experiment was as follows. A dog having been placed fully under the influence of

morphea subcutaneously injected, its heart and lungs were isolated in the manner which I had the honour to describe to this Faculty two years ago.* The heart was then fed with debrinated blood obtained by the previous bleeding of other dogs, and supplied to the superior vena cava, under a constant pressure of Mariotte bottles. These bottles were four in number; two of them arranged to contain and distribute blood containing no alcohol, and two of them blood containing alcohol. By stopcocks, any bottle could at will be connected with the heart. At the commencement of the experiment, the heart was fed with blood mixed with one-fourth its volume of 0.75 per cent. solution of sodium chloride in distilled water—2,000 cubic centimetres of blood mixed with 500 cubic centimetres of the salt solution. This blood, passing from right auricle to left ventricle, was sent through the lungs to the left heart, and from the left ventricle was pumped out into a tube connected with the right carotid artery. The aorta was ligatured immediately beyond the origin of this vessel. The tube connected with the right carotid conveyed the blood to a height sufficient to maintain about an average arterial pressure, as measured by a mercury manometer connected with the root of the left carotid. The pen of this manometer recorded on the kymograph not only the average arterial pressure, but the pulse-rate. Uniform and free artificial respiration was maintained by a water engine.

The mode of work was as follows. One of us took charge of the kymograph, and was also responsible for time signals. All being ready, the heart was placed in connection with a flask containing good blood, and allowed to pump blood from this flask into another. Let us call the four flasks A, B, C, and D respectively. When flask A was empty and B filled, it was easy, by opening and closing the proper stopcocks, to supply the heart from B and let it pump into A, and so on, to and fro, with the good blood for a certain time. At short intervals, the blood pumped out by the heart in a minute was collected separately and measured. As soon as it was found that this work was pretty constant, varying not more than 10 cubic centimetres in a minute, the good blood was shut off and the poisoned blood from C turned on; this was pumped into D and collected there. While this poisoned blood was circulating, the quantity pumped out by the heart was measured from minute to minute; then good blood was again turned on, and the measuring continued. Any experiment in which the heart did not under these circumstances show marked recovery from the action of the alcohol was rejected, so as to avoid the risk of ascribing to the alcohol something which was possibly due to the independent death of the heart.

The general result of our experiments may be primarily stated as follows. Blood containing one-eighth per cent. by volume of absolute alcohol has no immediate action on the isolated heart. Blood containing one-fourth per cent. by volume—that is, two and a half parts per thousand of absolute alcohol—almost invariably remarkably diminishes within a minute the work done by the heart; blood containing one-half per cent. always diminishes it, and may even bring the amount pumped out by the left ventricle to so small a quantity that it is not sufficient to supply the coronary arteries; hence blood is drained off by them from the outflow tube,

* Transactions of the Medical and Surgical Faculty of Maryland 1882, p. 203.

and at last none is pumped out from its upper end at all.

We may here point out that the dose of alcohol was not *a priori* a large one. A man weighing 150 lbs. contains about 11½ lbs. of blood. One quarter per cent. of this is 0.46 of an ounce, a quantity exceeded by that in a single ordinary drink of brandy; and some people take a good many such drinks in a day. Moreover, the alcoholised blood in our experiments could hardly have acted on the heart as it flowed through its cavities. It must almost certainly have acted on the heart after it flowed through the coronary arteries to the capillaries of the organ, and came into close relation with its muscular and nervous tissues. To get to these capillaries it had first to circulate through the lungs, and there is no doubt that some of even the small quantity of alcohol present was eliminated.

What is the cause of this diminution in the quantity of blood pumped out?

Differences in the flasks and rubber tubes being excluded as causes of the phenomenon, we have to seek for it in some action exerted by the drug on the living organs; and here several possibilities suggest themselves. It might be that the alcohol constricted the pulmonary vessels, and so prevented the blood from reaching the left ventricle as freely as before; or it might be that it dilated the coronary arteries, and so drained off more blood through the coronary circuit, and thus left less to be pumped out from the exit of the flowing tube; or it might be that the pumping power or the capacity of the left ventricle was altered; or, of course, there might be combinations of these.

We were set on the right track one day, when we modified the experiment by cutting away the pericardium before administering the alcohol. To our surprise, even blood containing ½ per cent. of alcohol now had little or no effect on the work done by the heart.

We tried this repeatedly in another manner. Keeping the heart in the pericardium, we administered alcohol and got the usual result; then recovered the heart by good blood, cut away the pericardium, again gave alcohol, and now with little effect. As the absence of the pericardium could hardly in any conceivable manner prevent constriction of the pulmonary arterioles, or prevent dilatation of the coronary vessels, it was clear that neither of these would account for the results of the administration of alcohol.

Our attention was therefore turned to the proper heart-substance. Direct observation of the organ, in fact, showed it to become enormously distended when supplied with the alcoholised blood. Normally, the dog's ventricle contracts so as to completely empty itself and obliterate its cavity. Under the influence of alcohol this is entirely changed: the ventricle ceases to contract completely; even at the height of its systole the organ completely or nearly completely fills the pericardiac sac; in its diastole, it has little or no room to expand further and take in a fresh supply of blood.

Hence a great diminution in the quantity of blood which it has ready to pump out at its next contraction. If now the pericardium be cut away, the heart enlarges enormously in diastole, takes in its usual quantity of blood, and drives it out at the systole: hence the organ performs its usual amount of work. This seems to show that the muscular power of the organ is not at first influenced; if the

heart be not confined in the pericardium, and the quantity of alcohol in the blood flowing through it do not exceed ½ per cent. by volume, the work done is not affected—at least for a considerable time. It is not the contractile power, but the elasticity of the cardiac muscle that is influenced; its 'tone' is lowered, and it works under new and (when the pericardium is present) very favourable conditions. It acts like a greatly relaxed muscle, which contracts to half its normal extent, compared with a healthy muscle, in good tonic state, which, when fully extended, is shorter than the atonic, and whenever it contracts, contracts more completely; and, so far as the heart is concerned, to the fullest possible extent. If, however, the administration of alcoholised blood of ½ or ½ per cent. be long continued, or if blood containing 1 per cent. of alcohol be used, then, even with the pericardium removed, the systole becomes feebler and feebler, the work done less and less, and finally *nil*.

Whether alcohol directly combines with the cardiac muscular tissue, or whether it indirectly influenced it by interfering with its nutrition, we are not able to say. The rapidity with which the effect manifests itself seems in favour of direct poisoning; on the other hand, the dog's heart will only bear a very brief deprivation of oxygen, and it has been shown that alcohol added to the blood makes it hold its oxygen more firmly and yield it less readily to the tissues; and the heart subjected to alcohol has very much the appearance of the heart of an asphyxiated animal. On the whole, we are inclined to think that the poisoning is direct.

We have made a few experiments, to see what dose of alcohol given by the stomach to a dog will produce some similar action on the heart. When the heart lies in the body and in connection with the central nervous system, there are of course considerable difficulties to be overcome; and all we can say as yet is, that to get any distinct influence on blood-pressure, one must put much more alcohol into the stomach than an amount equal to ½ per cent. of the total blood in the animal. It is either not absorbed fast enough to reach at any moment the heart-poisoning limit, or more probably is picked up by other organs, very likely the liver, and held back from the heart.

We then tried in another way, by directly injecting into the jugular vein of a curarised dog a small quantity of salt solution containing an amount of alcohol equal to ½ per cent. of the total blood of the animal, reckoned as one-thirteenth of its weight. In such cases we found usually a very temporary enfeeblement of the heart, indicated by a lower arterial pressure, but this seems only to last while the injected solution is flowing through the organ, or for a few seconds afterward. Before the blood returns it has apparently deposited its alcohol elsewhere in the body, or at any rate got rid of it somehow, so that it no longer acts immediately upon the heart, at least to a directly noticeable extent.

ARTICLE 1452.

CORNIL ON THE HISTOLOGY OF ELEPHANTIASIS ARABUM.

M. CORNIL (*Le Progrès Méd.*, No. 37, 1883) gives the following description of the histology of a case of elephantiasis Arabum sent him by Professor Girard of Grenoble.

The *spleen* was very large, hard, smooth, dark brown, distinctly amyloid: the arterioles, corpuscles, capillaries, and veins, being affected.

The *kidneys* were amyloid, with hyaline cylinders *in situ*, and fatty degeneration of the epithelium.

The *liver* presented no amyloid disease; there was fatty degeneration.

The *skin* of the region affected was irregular, granular, warty, rough, covered with a thick layer of epidermis, except in one part, four or five centimètres square, which was depressed and ulcerated. The epidermis was thick and hard, the papillary layer normal, the true skin one to two centimètres thick, resistant, and containing a clear fluid in its meshes. The ulcerated patch was covered by a thin layer of granulations, one millimètre thick: the true skin below was one centimètre thick, and below that was the cellular tissue. The papillæ were well developed, giving rise to rough and warty appearance of the surface.

Epidermis.—The Malpighian layer was normal; the granular layer coloured vividly with carmine, showing that its cells contained much eleidine: and patches of this substance lay in the horny layer. The latter was very thick and hard, and the superficial layer desquamated, and often broke away in the sections.

Papillary Bodies.—These structures were generally enlarged transversely as well as vertically, their shape being variable—conical, globular, or hemispherical. Their tissue was composed of fibres and loose connective tissue, with flattened and a few round cells. In some, the red corpuscles were extravasated between the fibres, forming true ecchymoses; but the corpuscles were unaltered, and therefore were probably extravasated shortly before death. The capillary vessels were dilated, measuring $\frac{1}{4}$ to $\frac{1}{6}$ hundredths of a millimètre. Their walls were thin, and they were filled with blood-clot.

Dermis.—The true skin was formed of fibres running parallel to the surface, and traversed perpendicularly by vessels mounting to the bases of the papillæ, which were accompanied by certain fibres running parallel to their coats. Between the first order of fibres were numerous fusiform or flattened cells, and a large number of round or lymphoid elements. These vessels, like those of the papillæ, were filled with clot. The lymphatic vessels were much dilated, and contained lymphatic cells entangled in fibrine, and were lined with swollen epithelioid cells. The intradermic portions of the sweat glands were elongated, and the calibre of the tubes widened, their epithelium increased, and their lumens filled with granules and detached cells.

Ulcerated Portion.—The surface was covered with an embryonic tissue; below, the dermis was as described elsewhere. In a certain number of vessels, there were heaps of micrococci.

The *nerves* of the affected leg were enlarged to at least a third more than their natural size. The neurilemma was increased, but there were patches of cellulo-adipose tissue in the nerve which contributed to increase its bulk. The axis-cylinders were irregular in size; some had disappeared, or were represented only by a zone of granules.

The *lymphatic glands* were very large and homogeneous from inflammatory hypertrophy. Their follicles were dilated, containing large cells and micrococci. The lymphatics were dilated, and the capsules thickened.

The *muscles* examined were normal.

The *femoral artery* was thickened by a little endo- and peri-arteritis. The femoral vein showed a little peri- and endo-phlebitis; but both these vessels were free.

The bones were not sent, but M. Girard said the fibula was as large as an adult tibia, and the tibia as large as a femur.

ROBERT SAUNDBY, M.D.

ARTICLE 1453.

ERCOLANI ON THE PATHOLOGICAL ALTERATIONS OF SYPHILITIC ORIGIN IN THE HUMAN PLACENTA.

ANATOMISTS differ as to the structure of the foetal villus, especially as regards its external envelope, which some regard as belonging to the foetus, while others, amongst whom is Ercolani, think that it belongs to the mother. The intimate structure of the placenta is not understood, because of the wrong views held of the origin and constitution of the decidua, and because due regard has not been paid to the early phases of its development. Nearly all anatomists are agreed that after conception the uterine mucous membrane becomes thickened and vascular, and is gradually transformed into the decidua. Ercolani (*Bullettino delle Scienze Med.*, April 1883, and *Annali Universali di Medicina*, July 1883), on the contrary, thinks that there is a true new formation of cellular elements, elaborated by the walls of the capillary vessels denuded by the shedding of the epithelial layer of the internal surface of the uterus, which takes place after fecundation. The hypertrophy of the utricular glands attests their exaggerated functional activity; and by their secretion the fecundated ovule, after its descent into the uterus, is fixed to the young newly formed elements of the decidua, which proliferate round it and cover it, forming the decidua reflexa. Between the ovum and the uterine wall there is found a layer of decidual elements, the decidua serotina of the old anatomists; this grows and becomes the maternal portion of the placenta, and is pervaded by a network of vessels coming from the uterus. The foetal villi arising from the opposite surface of the chorion bury themselves in this layer of decidual cells. These facts are recognised by all. The decidual layer, according to Dr. Ercolani, is entirely due to the new formative process, while the spongy space beneath it is due to the dilatation and new formation of the utricular glands. As pregnancy advances, two other facts are established about which there is no disagreement: 1, the proliferation of branches from the trunks of the foetal villi; 2, the ectasic process which invades the maternal vessels. Up to the third month, the maternal and foetal portions of the placenta are easily separated: after this period it is impossible. The author denies the formation of lacunæ, as explained by Kölliker, and maintains that, as a consequence of these two processes, proliferation of the branches of the villi and the ectasic process affecting the maternal vessels, the villi protrude into the interior of the vessel, against which they exercise pressure, while the epithelioid wall of the vessel adapts itself to the form of the villi, thus forming to them a sheath which redoubles that already formed by the decidual elements elaborated from the external walls of the vessel, and thus gives rise to the appearance of the trunk and branches of the villus floating in the blood of a lacuna.

Accepting this explanation, the mode of nutrition of the fetus is the same in the first as in the last month of pregnancy: the maternal portion represented by the placental cells is always in relation with the foetal absorbing surface represented by the villi, and the relation only becomes more intimate as pregnancy advances. According to Kölliker, the villi are formed of connective tissue pervaded by a fine network of vessels, and covered externally by epithelium, which is formed of two layers, the superficial subtle and diaphanous, the deep disseminated with nuclei. This is correct in fully formed placenta. Ercolani holds that the fine diaphanous external layer is formed from the introflexed epithelioid part of the maternal vessel, and the deep nucleated layer from the decidual elements, the nuclei only being here visible. In the early stages of the development of the placenta, when the two parts are still to be distinguished, the epithelium investing the villi is of the pavement variety, large cells with distinct outlines, with a granular nucleus double the size of the nuclei of the so-called deep layer of the villi of the completely formed placenta; the external diaphanous layer is completely wanting. Every trace of this pavement-epithelium has disappeared in the villi of the fully formed organ.

Dr. Ercolani describes the material alterations which syphilis induces in the parenchyma of the different tissues and organs, and then considers in what parts and to what extent these alterations are found in syphilitic placenta. A fact as to which all agree, is the massive form which the foetal villi assume; but as to the nature and seat of this enlargement there are various opinions, especially as to whether the maternal or the foetal structures are originally implicated. The opinions entertained must necessarily differ, according to the idea held of the anatomy of the villus. Ercolani describes as the first stage an infiltration into the elements of the affected organ of small round cells or lymphoid corpuscles, and a gummatous or colloid degeneration of the infiltrated elements and of those of the surrounding tissues as the last stage of the pathological lesion. He was able to demonstrate these alterations in the maternal portion, and thus to bring new proof of the maternal source of the external envelopes of the villi. In the fully developed placenta, it appears impossible to decide whether the syphilis is of paternal or of maternal origin. So close is the connection between the maternal and foetal structures, that the syphilitic virus must easily pass from one to the other. In syphilitic placenta examined, the most profound, and hence probably the oldest, alterations were observed sometimes in the foetal, sometimes in the maternal portion. Does this depend on the double mode of origin the disease may have in the foetal envelopes? It is not illogical to suspect it.

Ercolani concludes by passing in review the alterations which most likely have nothing in common with syphilis. Among the alterations observed in the parenchyma of the villi are: 1. Cystoid myxoma of the villi; 2. Melanosis of the villi; 3. Transformation into fibrous tissue of their parenchyma; 4. Hypertrophy and simple hyperplasia, and perhaps degeneration into mucous tissue of the connective elements of the parenchyma of the villi, with more or less extensive obliteration of the foetal vessels with calcareous degeneration more or less diffused. These alterations, proper to fatty placenta, are observed also in syphilitic

placenta. Among the differential characteristics are the absolute and constant absence, in so-called fatty placenta, of gummatous degeneration in the hypertrophied elements of the parenchyma of the villi, this being generally observed in syphilitic placenta; in fatty placenta the cellular or decidual elements, the maternal envelope, or the so-called deep nucleated layer of the epithelium of the villi is not affected. Other alterations are: 5. Fatty degeneration and consequent extensive calcification of the parenchyma of the villi; 6. Dilatation as well as the obliteration of the vessels of the villi; 7. Of the degeneration described by Oedel into fibroid, hyaline, or colloid substance of the parenchyma of the villi, there are not facts enough to warrant a final judgment; but it may be surmised that we have to deal with a syphilitic lesion of the placenta, or with a syphilitic gummatous degeneration of the parenchyma of the villi.

As to the pathological alterations observed in the maternal portion of the placenta, it appears that syphilitic origin may be excluded in—1. Melanosis, or infiltration of granules of pigment in the placental cells; 2. Transformation into fibrous tissue of the cells of the uterine and subchorionic parts of the maternal placenta, and of the decidual or placenta cells of the envelope of the villi, which the author distinguishes by the names of *fibroma* of the serotina and of the maternal envelope of the villi; 3. Fatty degeneration of the placental cells, with or without obliteration of the vessels, with or without calcareous degeneration; 4. Thrombosis and hæmorrhage or apoplexies of the placenta; 5. He would not consider as syphilitic an alteration described by Virchow as a syphilitic endometritis, but regards it as an arrest of development by the formation of lacunae, giving rise to an anomalous vascularisation of the organ and an apparent angioma of the serotina. 6. Abscesses and cystic tumours.

Some doubt must be raised by the morbid form indicated by Ercolani under the name of myxoma of the serotina, or of the glandular organ which involves the villosity of the placenta, in distinguishing it from the hydatiform placenta properly so-called, determined by the myxomatous degeneration of the parenchyma of the villi as explained by Virchow.

G. D'ARCY ADAMS, M.D.

ARTICLE 1454.

CAMMAN ON THE ORIGIN OF CREPITANT AND SUBCREPITANT RÂLES.

DR. CAMMAN, in the *Canada Medical Record*, p. 258, takes exception to the ordinary explanation of the crepitant and subcrepitant râles of pneumonia, that these are due to the passage of the current of air through exudations from the alveolar walls, and that the different varieties of sound depend on the differences of density of the fluid through which the bubbles of air pass.

He maintains that, the interchange of foul and fresh air being mainly performed by the diffusion of gases, the actual movements in the air in the smaller bronchi and alveoli due to the respiratory motion are slight, and especially so when this motion is further impeded by the exudation of fluid into the air-cells, or by secretion in the small bronchi. On the other hand, Dr. Camman holds that the crepitant and subcrepitant râles are due to pleuritic friction,

and bases this opinion, not only on his own experience, but also on the results of the United States Commission on the Contagious Pleuropneumonia of Cattle. It seems that Dr. Leaming examined a number of these cattle during life, and in every case where râles had been heard, pleuritic exudations were found after death; and conversely, where pleuritic exudation was found, there had been râles. In six cases of these, one lung was completely consolidated, and therefore no air could enter, nor could râles be produced.

The author does not appear to see that pleuritic friction will not explain either the variety of râles or the period of respiration during which they are heard. He cannot have noted the various auscultatory stages of a case of ordinary croupous pneumonia, and have compared them with the changes in the expectoration, or he would hardly have arrived at the above conclusion. The obstruction caused by the pressure of the walls from distended vessels and serous infiltration, and by the viscid secretion, shows itself in the smaller bronchi, first by a slight roughness of the breath-sound, and, as the exudation increases, the bubbling of air through a viscid fluid gives rise to the fine crepitant rhonchus. When the exudation still further augments, the tubes are so blocked that no air at all enters, and the lung becomes consolidated, and the crepitant rhonchus is then replaced by bronchial breathing and bronchophony; and doubtless it was in this stage that the lungs of the pleuropneumonic cattle were found after death by Dr. Leaming. We are surprised that Dr. Camman concludes from the presence of pleurisy, a common, but by no means invariable, accompaniment of croupous pneumonia, that the physical signs are due to this alone, and overlooks the whole chain of intrapulmonary pneumonia which must have preceded the consolidation.

C. THEODORE WILLIAMS, M.D.

MEDICINE.

RECENT PAPERS.

1455. CHARCOT.—On Different Forms of Aphasia. Lectures reported by Dr. G. Rummo. (*Gazz. degli Ospitali*, 1883. Nos. 38, 40, 44, 49, 50, 59, 60, 61.)

1456. SENNETT.—An Epidemic of Pneumonia. (*Berlin Klin. Wochensh.*, Sept. 17.)

1457. PRIOR.—The Occurrence of Three Infectious Diseases in the same Individual within one Month. (*Deutsche Med. Wochensh.*, Aug. 1.)

1458. LEVY.—Diphtheritic Weakness of the Heart. (*Deutsche Med. Wochensh.*, June 27.)

1459. HENOCHE.—Nervous Disturbances from Indigestion. (*Wien. Med. Blätter*, July 5.)

1460. BROADBENT.—The Causes and Consequences of Undue Arterial Tension. (*Brit. Med. Jour.*, August, p. 357.)

1461. BENNET.—Sea-Sickness and its Prevention. (*Brit. Med. Jour.*, August, p. 270.)

1462. HART.—The Prevention of Cholera. (*Brit. Med. Jour.*, July, p. 181.)

1463. KENDALL.—Scarlet Fever with Suppuration of the Right Eye. (*Brit. Med. Jour.*, June, p. 1225.)

1464. BRISTOWE.—Death from Cerebral Hemorrhage in Purpura. (*Med. Times and Gaz.*, July, p. 87.)

1465. COULLAND.—Abdominal Aneurism Opening into the Duodenum. (*Med. Times and Gaz.*, July, p. 65.)

1466. CHEVREK.—Cholera Asiatica Maligna. (*Med. Times and Gazette*, Sept., p. 232.)

1467. BLANC.—Malarious Cholera. (*Lancet*, August, pp. 228 and 271.)

1468. WORTABET.—Another Epidemic of Trichinosis near the Sources of the Jordan. (*Lancet*, August, p. 183.)

1469. WHITTLE.—A Case of Diabetes; Death thirty hours after Visit. (*Lancet*, Sept., p. 368.)

1470. THIN.—A Peculiar Disease of Hot Climates. (*Practitioner*, Sept., p. 160.)

1471. AUSTIN.—Acute Rheumatism as a Premonitory Symptom of Phthisis. (*Lancet*, July, p. 10.)

1472. MALLINS.—Jaundice from an Ascaris in the Biliary Duct. (*Lancet*, June 1, p. 1123.)

1473. WILLCOCKS.—Some points in the Pathology of Anæmia. (*Practitioner*, July 1883.)

1474. NEALE.—Cancer of the Stomach. (*Practitioner*, July 1883.)

1475. ROBERTS, J. B.—The Diagnosis of Perinephritic Abscess. (*American Jour. of Med. Diseases*, April.)

ART. 1455. *Charcot on Aphasia*.—These lectures, previously unpublished, have been reported (*Gazz. degli Ospitali*) by Dr. Rummo, with the consent of the author. Aphasia is divided into four varieties, depending upon the elements of which speech is composed. Two are motor, and two sensory. The motor forms of aphasia are: first, loss of memory of the processes used in articulating; and, secondly, loss of memory of the processes used in writing—agraphia, or aphasia of the hand. There is no paralysis; other kinds of movement are performed without difficulty. The motor memory for those special movements is alone destroyed. The sensory forms of aphasia are: first, visual aphasia or loss of memory for written signs (*word-blindness* of Kussmaul); and, secondly, auditory aphasia or loss of memory for spoken words (*word-deafness* of Kussmaul). The chief value of these lectures lies in the fact that, while these different varieties of affections of speech are usually seen only in combination, Prof. Charcot has had the good fortune to see the two motor forms and the visual absolutely separate and uncomplicated. One patient was unable to speak, although he could read, express himself in writing, and understand what was said to him. One instance of pure agraphia was observed. The patient could speak, read, and understand what he heard; he had simply forgotten how to write. Another patient could speak, could understand what was said, and, though able to express himself in writing, was unable to read, and it was only by retracing the characters that he was able to spell out even what he had himself written. The cases of word-deafness that have been recorded have been very rare, and the author does not think that they are at all conclusive. In regard to the localisation of the visual centre, experimental research is put aside for two reasons. In the first place, it is not safe to argue from dogs and monkeys to men; in the second place, the results obtained by different investigators are at variance; Ferrier, for example, placing this centre in the *pli courbe* (angular gyrus), Munk in the occipital lobe. The centre for the motor memory of articulation is fixed by necropsies for right-handed persons in the foot of the third left frontal convolution. One case is on record in which the island of Reil was alone affected. The motor memory for writing is ascribed by Exner to the foot of the second left frontal convolution. The visual and the auditory memory for words are seated respectively above and below the horizontal branch of the fissure of Sylvius; the visual centre being in the *pli courbe*, the auditory in the

first temporo-sphenoidal convolution. It may be added that the author and Pitres are preparing a work to establish their view, that all the motor centres of the cerebral cortex are grouped in the two vertical convolutions respectively in front of the fissure of Rolando and behind it; namely, the ascending frontal and the ascending parietal. It should be mentioned that hemiopia or more or less narrowing of the field of vision usually accompanies word-blindness (loss of memory of written signs); a fact generally unobserved. Hemiopia is, therefore, sometimes due to a cortical, and not to a basilar lesion or affection of the optic tract. It may be added that the honour of having sown the first germs of the theory of word-blindness and word-deafness is assigned to Broadbent. Although that author did not coin special names for these disorders of speech, he and Bastian must be considered fore-runners of Kussmaul and Wernicke.

WILLIAM R. HUGGARD, M.D.

1456. *Senft on an Epidemic of Pneumonia*.—Dr. Senft, of Wiesbaden, describes (*Berliner Klin. Wochensh.*, Sept. 17), an epidemic form of pneumonia which was observed in November 1882, in Erbenheim, a well built town situated on a high plateau, having 1,500 inhabitants. No case of typhus had been seen there for upwards of five years, and, according to the statistical record of Dr. Senft, kept during many years, the percentage of pneumonia, to all other diseases, had been four only. In the short space of twenty-two days (from Nov. 2 to 24) fifty-nine persons had been sufferers from pneumonia. The highest daily number of attacks (seven) occurred on the 11th, and thence declined to the 16th, when it rose to six, and thence subsided to the 24th. The diagrammatic curve thus formed, corresponded closely with the curves of the meteorological record, during the same period, with reference to barometrical pressure, temperature, hygrometric conditions, and wind. The highest number of cases coincided with a low barometer, high degree of relative moisture, and a south-west wind, and rainfall. Concurrently with this epidemic pneumonia, an epidemic influenza prevailed among children in a neighbouring town. Of the fifty-nine cases of pneumonia, twenty-four were males, and thirty-five females. The ages varied from one year to over sixty. Twenty-six cases occurred between the ages of one and five years, and sixteen from five to ten years. The mortality was 2.95 per cent. Several deaths were attributable to complications with other diseases. In thirteen cases the inflammation occurred on the left side, in twenty-six on the right, and in twenty on both sides of the chest. It was observed as a point of interest, that a great proportion of the cases presented the lobular form of inflammation. In many cases pleuritis was also found. The average duration of the cases was eleven days. With reference to bodily temperature, a morning remission and evening exacerbation were generally noticed. The temperature of from 40° to 41° C. (=104°–105° F.) was usually a fatal indication. The evidence of the contagion of this epidemic was found in the occurrence of the majority of the cases in the same streets, and among relations. A few weeks after its subsidence, an epidemic of influenza appeared in Erbenheim under similar meteorological conditions.

W. B. KESTEVEN, M.D.

1457. *Prior on the Occurrence of three Infectious Diseases in the same Individual*.—Dr. Prior, assistant to the Royal University Polyclinic in Bonn, communicates to the *Deutsche Med. Wochensh.*, Aug. 1,

a case in which three different infectious diseases occurred in the same individual in the space of one month. Three children were attended on Nov. 18 for well-marked scarlatina, with a temperature of 104° Fahr., copious eruption, and some difficulty of swallowing. Desquamation began on Nov. 21, and proceeded normally, only one child having slight renal symptoms, until, on Dec. 1, the two younger were attacked with rigors, headache, and malaise, and on the following day were covered with a thick eruption of varicella. On Dec. 3, in the absence of the mother, a child from the next room, intercourse with which had been carefully avoided on account of measles, was found playing with the child, and showed signs of measles next day. The first patients were now carefully watched, and on Dec. 13 the temperature was found to be raised, with photophobia and slight coryza: on the 15th the eruption of morbilli appeared. Its course was protracted, and caused some anxiety: but, finally, the children recovered. The cases show how the two poisons of scarlatina and varicella may be in the organism at the same time, and how measles may be conveyed by a two hours' intercourse in the prodromal stage, while the crusts of varicella are still present, the measles showing itself as soon as ten days later.

1458. *Levy on Diphtheritic Weakness of the Heart*.—At the meeting of the Verein für Innere Medicin, on June 18 (*Deutsche Med. Wochensh.*, June 27), Herr Levy described a case of diphtheritic weakness of the heart in a boy aged 13. Four weeks after the beginning of the attack of diphtheria, when he was so far recovered from the slight subsequent paralysis that the day was fixed for his return to school, an attack of sudden faintness came on, preceded by palpitation and difficulty of breathing. The pulse was 100 to 120, very small and extremely irregular, sometimes even stopping for a beat or two, and the breathing was impeded; but consciousness was intact, and the patient heard all that went on around him. These attacks recurred four or five times a day for the first fortnight, generally coming on quite suddenly, and leaving the boy in the intervals very weak and anæmic, with much palpitation of the heart. The attacks gradually became less frequent, and two months after their commencement they ceased entirely for three weeks, so that the boy returned to school—only, however, to be obliged to rest again on account of faintness, although it was less than before. He had now been suffering for four months; but, as there was no sign of dilatation or other organic mischief in the heart, the careful nursing which he was receiving at home would probably end in cure. In the subsequent discussion of the case, Herr Leyden expressed his opinion that the lesion in such cases lay in the cardiac substance itself, and was not dependent on disordered innervation.

1459. *Henoch on Nervous Disturbances from Indigestion*.—Professor Henoch, of Berlin, relates, in the *Wien. Med. Blätter* of July 5, some cases which occurred in his practice, in which various psychical and nervous symptoms resulted from indigestion. One little girl, three years of age, became aphasic suddenly, and when seen an hour afterwards was not able to utter a word, except a cry on being pinched. Speech returned soon afterwards, immediately on the child vomiting a cherry which had been swallowed without being chewed. One or two other similar cases, which he describes, have occurred; and the pulse is generally somewhat retarded, but is never

irregular, as it is in commencing meningitis, for which this condition might be mistaken. In one case, paralytic symptoms followed the disappearance of the psychical. An emetic seems to be the remedy indicated, as improvement always followed the emptying of the stomach. ALICE KER, M.D.

1460. *Broadbent on the Causes and Consequences of Undue Arterial Tension.*—Dr. Broadbent opened a discussion in the Section of Medicine at the annual meeting of the British Medical Association, on the causes and consequences of undue arterial tension (*Brit. Med. Jour.*, August 1883, p. 357). High arterial tension exists whenever the artery is full between the beats, so that it can be rolled upon the fingers like a tendon in the wrist. When the pulse-wave is short, it usually indicates dilatation of the left ventricle and incipient failure of the heart. The main cause of unduly high arterial tension is resistance in the peripheral circulation. In excitement and nervousness there is, with the heightened action of the heart, contraction of the peripheric arterioles, producing a temporary rise of tension. In hysteria, there is protracted spasm of the arteries and high tension, and both in hysteria and in nervousness one familiar result is excessive secretion of dilute urine. The author enumerates the conditions under which arterial tension arises, and makes a few remarks on them. The conditions are: 1, renal disease of whatever kind, except acute suppurative pyelitis, and nephritis; 2, gout; 3, lead-poisoning, which frequently gives rise to gout and kidney-disease; 4, pregnancy; 5, anemia, especially chlorotic anemia; 6, emphysema, chronic bronchitis, and sometimes even phthisis; 7, inherited tendency; 8, constipation. The author then touches on the consequences of arterial tension, commencing with the effects on the heart, then going on to the valves, arteries, and arterioles. Secondary effects of the changes in the heart and blood-vessels are among the most serious of the consequences of undue tension in the arterial system. Prominent among them is cerebral hemorrhage. When, with degeneration of the vessels, the heart has become weak and fatty, we have the conditions which give rise to imperfect supply of blood to the tissues, and the effects of this usually become manifest in the brain. Sleeplessness, breathlessness, depression of spirits, headache, and many other symptoms, including neuralgia, may often be relieved by employing treatment which will reduce the arterial tension. The careful administration of calomel is of the greatest value.

1461. *Bennet on Sea-Sickness and its Prevention.*—Dr. Henry Bennet, in the *Brit. Med. Jour.*, August 1883, p. 270, writes saying that he has found black coffee (*café noir*), taken about an hour before starting on a short sea voyage, an excellent remedy for sickness. The stomach ought to be empty, a light meal having been taken four hours previously to starting; and then an infusion of about $1\frac{1}{2}$ ounces of pure coffee-powder, in about 4 ounces of boiling water, should be taken about an hour before sailing; or, if milk be preferred, it must be taken about two and a half hours before. The tonic effect of coffee lasts eight to ten hours; and Dr. Bennet says that the above plan has shorn the Channel of its horrors in his case and in that of many others. In the continued sickness of long voyages, great benefit may be derived from the injection into the rectum at night of 15 to 20 drops of laudanum in $1\frac{1}{2}$ ounces of warm water.

1462. *Hart on Prevention of Cholera.*—Mr. Ernest Hart (*Brit. Med. Jour.*, July 1883, p. 181), at a meeting of the National Health Society, gave an address on 'The Powers and Duties of Individuals and Communities for the Prevention of Cholera and Diarrhoea.' He first took the history of cholera, and referred to the epidemic of 1848, when the causation of this disease first became the subject of organised scientific inquiry. Impure water was the readiest propagator, and it was an anomaly in our legislation that there were no penalties, so far as the author knew, upon any companies for distributing impure water to our houses. As for quarantine and cordons, both have proved to be alike cruel, selfish, morally wicked, and medically useless; long ago, in our Indian dependencies, we have learnt to rely upon inspection, cleanliness, isolation, and disinfection. In conclusion, Mr. Hart observed that cholera was no longer a mystery, and had lost much of its terror. It was not infectious by simple contact, and it was known how to check its progress. As a precaution against cholera, it was the duty of each head of a household to see that the drainage was complete and safe; that the water-supply was uncontaminated by the sewage; and that, especially in old houses, there was no cesspool beneath the basement. The simplest kind of disinfectant for dirty linen, used in suspected cases, was a weak solution of chloride of lime, or a solution of carbolic acid. It was remarked that, cleanly as the English were, they took no precautions to ensure the cleanliness of their servants. Disinfectants should not be used as deodorisers; all causes of bad smells should be removed before the use of any disinfectants. Individual precaution should be exercised, and the mildest case of diarrhoea should be treated as of the utmost importance.

1463. *Kendall on Scarlet Fever, with Suppuration of the Right Eye.*—Mr. Kendall, in the *Brit. Med. Jour.*, June 1883, p. 1225, reports a case of a child, aged 8, who was attacked with scarlet fever. On the second day of the illness the right eyelid became much swollen; and a day or two afterwards two brownish growths appeared, one on each side of the cornea, springing up from the conjunctiva. The following day the eyeball itself became much swollen; it was tense, the cornea was wrinkled, and somewhat steamy. Pus then appeared in the anterior chamber, which was let out by puncture. After the operation the eye began to shrink, and the two growths before mentioned dried up and dropped off. For a few days the eye improved, but the lid became much swollen, with marked fluctuation of the lacrymal sac, from which pus was evacuated. The eye again commenced to suppurate freely, and excision was performed. The patient mended after the operation, but died suddenly a few days afterwards. 'No *post mortem* examination was allowed. [Mr. Bayler, in the *Lancet*, Sept. 1877, p. 391, reports the histories of two sisters who became totally blind after an attack of scarlet fever. In these cases the eye was not disorganised, nor were there any marked changes to be discovered upon ophthalmoscopic examination. (*vide Medical Digest*, sect. 79 : 1.)—*Rep.*]

1464. *Bristowe on Death from Cerebral Hemorrhage in Purpura.*—Dr. Bristowe, in the *Medical Times and Gazette*, July 1883, p. 87, contributes some valuable remarks on purpura, and notes two cases in which purpura proved fatal by hemorrhage into the substance of the brain. Purpura is divided into two varieties—namely, purpura simplex, and purpura hemorrhagica: but it should never be

forgotten that the distinction is a purely artificial one; that true purpura in all its forms is, as far as we know, the same disease; and that, although the prognosis of a case of purpura simplex is generally favourable, there is always the possibility that it may assume grave proportions; that it may be attended with anemia and debility, and prove fatal by hæmorrhage. Of the pathology of purpura little is known, the rupture of the blood-vessels being probably due to the weakening of the parietes. The treatment is as unsatisfactory as are its causation and pathology. The two cases noted are typical examples of purpura hæmorrhagica, with the additional important feature that death was due to hæmorrhage into the substance of the cerebrum. One occurred in a man, aged 33; the other in a woman, aged 57. [An interesting case of spinal hæmorrhage during the course of a case of purpura is noted by Dr. Eade in the *Brit. Med. Jour.*, October 1881, p. 812. Vide *Medical Digest*, section 57:4.—*Rep.*]

1465. *Coupland on Abdominal Aneurism opening into the Duodenum*.—Dr. Coupland, in the *Med. Times and Gazette*, July 1883, p. 65, reports a case of a labourer, aged 72, who was admitted into Middlesex Hospital in a state of collapse. Under stimulants and warmth he rallied from the state of collapse, but during the first few hours the bowels were twice opened, and on each occasion some black tarry blood was passed. There was no recurrence of this hæmorrhage until just before his death, twelve days later. *Post mortem* examination showed the stomach to be full of a dark brownish-black fluid; the mucous membrane was intact. The duodenum contained a similar fluid distinctly blood-stained. Thrusting forward the duodenum and head of the pancreas, a globular tumour about the size of an orange could be felt. On laying open the duodenum, four small openings were seen in its inner wall. The tumour and aorta were removed together with the duodenum *in situ*. On laying open the aorta from behind, the orifice of the sac of an aneurism was found immediately below the origin of the renal arteries. During life, the diagnosis between aneurism and tumour of the pancreas was hard to establish.

1466. *Chevers on Cholera Asiatica Maligna*.—Dr. Chevers, in the *Med. Times and Gazette*, Sept. 1883, contributes some notes on cholera Asiatica maligna. The author says: 'If we accept the opinion that cholera is a pernicious fever, we must not expect to find that it is either contagious, as small-pox is, or that it is propagated from individual to individual, as a specific poison, as syphilis is.' Notwithstanding numerous instances where cholera has been traced to water contaminated with rice-water stools, the author remarks that 'No one has proved to my satisfaction that cholera-stools contain a specific poison capable of propagating cholera to those who swallow it.' Dr. Chevers states that nearly all Indian authorities, who believe that cholera is communicable by the dejecta, judge from their experience of epidemic cholera in the North-Western Provinces, whereas nearly all who have long worked in Lower Bengal—the fixed endemic area of cholera—doubt that this disease is at all communicable from man to man. At p. 260 Dr. Chevers continues his remarks, and furnishes some data based upon facts. 1. If a strong epidemic wave rise among us, its destructive effects will not be wholly avoidable. 2. Whatever treatment may be adopted, a very large percentage

of those first attacked will probably die. 3. In cholera outbreaks, he who enters the epidemic or endemic area encounters special danger. 4. The incidence of cholera will always be heaviest upon the most unsanitary localities. 5. It is dangerous to travel in the cholera area. Those who are well lodged and in comfortable circumstances have a great prospect of escape if they remain at home. 6. Whenever cholera attacks a barrack or gaol, the surest means of staying the pest is to remove those who are still well to a judiciously chosen camping-ground.

1467. *Blanc on Malarious Cholera*.—Dr. Blanc, in the *Lancet*, Aug. 1883, pp. 228, 271, asserts that pernicious malarious fevers have not received in this country the attention they deserve. They are essentially of the intermittent type, leaving during the intermission some stray symptoms of the pernicious attack, sufficient in most cases to greatly obscure the diagnosis. Malarious fever prevailed to a great extent at the Yerrowda Central Gaol during 1875. From April 1875 to March 1876 there were 1,653 cases of intermittent fever, 93 of remittent fever, and 10 of pernicious fever. The ten cases consisted of one apoplectic, one tetanic, two congestive, and six choleraic. A detailed account of these six cases is given; five recovered, one died. Dr. Blanc looks upon a moderately enlarged spleen as a favourable symptom in cases of malarious fever, having seldom met with this condition in remittent, or in pernicious fevers.

1468. *Wortabet on Another Epidemic of Trichinosis near the Sources of the Jordan*.—Dr. Wortabet, in the *Lancet*, Aug. 1883, p. 183, refers to a paper which appeared in the *Lancet*, March 19, 1881, in which he gave an account of an outbreak of trichinosis from eating the flesh of a wild boar, near the sources of the Jordan. A similar outbreak is detailed in the paper of Aug. 1883. Though forty or fifty people were attacked, none died. The flesh is always eaten in a raw or imperfectly cooked condition. In Syria the wild boar in winter is a delicacy; but, unless previously examined with the microscope, according to German law, or cooked more thoroughly than is usually done, its use cannot be free from the danger of communicating trichine to man.

1469. *Whittle on a Case of Diabetes: Death thirty hours after Visit*.—Sharing in the general sympathy which the harsh censure of Dr. Blades has evoked from the profession, Dr. Whittle, in the *Lancet*, Sept. 1883, p. 368, reports the following case. He was called to see a man, aged about 35, who was found lying helpless in bed; he was spare, but not emaciated; the hands and feet were cold and cyanosed; breathing was laborious, rapid, and deep; he could answer questions slowly; the pupils were equal, and there was no paralysis. The heart and lungs were healthy; the tongue was dry and brown; the throat was dusky red, with a vesicular eruption on the soft palate. Pulse, 140; temperature, 97°·8. The urine was not saved, but was reported to be healthy in appearance. There was neither œdema nor anemia. The case was diagnosed as one of diabetic dyspnoea, running rapidly to a fatal issue. The patient soon became unconscious, passed his urine in bed, and died thirty hours after the first visit. After death some urine was drawn off, and was found to contain albumen and sugar in abundance.

1470. *Thinon on a Peculiar Disease of Hot Climates*.—Dr. George Thin, in the *Practitioner*, September 1883, p. 169, records a short notice of a peculiar disease which prevails amongst the foreign residents

in many of the Chinese ports, and southwards towards the Straits Peninsula. The local name given to the disease is 'sprew.' The author terms it 'psilosis lingue'—'psilosis mucosæ intestini.' The term psilosis is proposed as expressive of a constant feature of the complaint, the bareness or rawness of the mucous membrane. The first stage of the disease is recognised by the patient complaining of loose watery motions in the early morning. The diarrhoea is painless. The discharge consists of thin, watery, straw-coloured fluid. The diarrhoea ceases with the morning hours, and in the evening the patient feels quite well, the symptoms again renewing themselves in the early morning of the following day. This state of things may continue for some months, and soon a condition of general debility ensues. In the second stage various dyspeptic symptoms manifest themselves, and in the third or fatal stage the symptoms of marasmus are marked. Patients living in England are liable to have severe recurrences both of the condition of the intestinal mucous membrane and of the raw state of the tongue when the weather becomes damp and cold. Little is known of the pathology of this complaint. Dr. Thin has never known it to occur in persons who have not been out of England, but only in those who have been in malarial countries. With regard to treatment, regulated diet is essential, and milk diet only is often necessary. Astringents and opiates are useless. The administration of Epsom salts and rhubarb is useful by producing the secretion of bile. [But little has been written upon this disease by English writers. In Holland, it is too well known among the previous residents of Java. In the *Brit. Med. Journ.* and also in the *Med. Times and Gazette* of 1881 some interesting remarks by Drs. Fayer and Manson are to be found.—*Wide Medical Digest*, 913: 4.—*Ref.*]

1471. *Austin on Acute Rheumatism as a Premonitory Symptom of Phthisis.*—Dr. Austin, in the *Lancet*, July 1883, p. 10, says that within the last few years he has had four cases of phthisis, in which the more decided pulmonary symptoms had been immediately preceded by the ordinary symptoms of acute rheumatism. A brief sketch of the four cases is given. All the subjects were young females, whose ages ranged from seventeen to twenty-four. A point worthy of notice is the fatal nature of the cases: two have proved fatal, the third is hopeless, and the fourth has not a favourable prognosis.

1472. *Mallins on Jaundice from an Ascaris in the Biliary Duct.*—Mr. Mallins, in the *Lancet*, June 1883, p. 1123, reports the case of an Indian officer, who was attacked with intermittent fever of a very mild type, but accompanied by a great deal of nausea and vomiting, followed in a few days by a decidedly yellow tinge of the conjunctivæ, and a week later by well-marked jaundice. All food taken caused nausea, so that the patient took very little nourishment, and emaciated rapidly; he was ordered to take a change, and decided to return to Europe. Whilst in Bombay, waiting to embark, the patient noticed at stool one day that he had passed a large ascaris lumbricoides, apparently dead. One end of its body to the extent of half an inch being of a deep green colour. The next day, the stools began to exhibit a slight amount of normal bilious hue, and before he arrived in England convalescence was satisfactorily established. The case is remarkable, as it is very probable that the common bile-duct was obstructed by the worm having entered the duct,

thus effectually plugging it and preventing the flow of bile. [In the *Medical Digest*, sect. 936: 4, many cases in which ascaris lumbricoides was found in biliary ducts are noted.—*Ref.*]

1473. *Willcocks on Some Points in the Pathology of Anæmia.*—Dr. Willcocks, in the *Practitioner*, July 1883, contributes some observations on the various fluctuations of the red blood-discs occurring in chlorotic anæmia during treatment by iron. Variations may occur both in number and in colour, but in this complaint one element of the blood is mainly affected, viz., the hæmoglobin, and it is the comparative simplicity of the blood-lesion, as well as its rapid response to chalybeate treatment, that renders this affection an excellent field for hæmometric observation. The author defines chlorosis as a form of anæmia, occurring at the period of menstrual evolution, consisting in the addition to the blood of a large number of young imperfectly-coloured elements, and in consequence the value of the individual corpuscles in hæmoglobin is reduced far below the normal. The absence of any great wasting in chlorosis is usually explained by the fact that the serum remains normal in quality, although its quantity is probably diminished. Notes are given of five typical cases of chlorotic anæmia, with diagrams showing the effect of preparations of iron and arsenic on the number of red blood-corpuscles, and the amount of richness of the blood in hæmoglobin. In two cases arsenic was given with negative results, but in one case it had a most beneficial action. In the *Practitioner*, Aug. 1883, p. 94, the paper is continued, and three cases of intense anæmia are reported. The author enunciates the hypothesis that iron possesses no power of directly stimulating the formation of new corpuscles by any influence on the cytogenic organs, but that it improves the richness of already existing corpuscles in hæmoglobin, and only increases their number indirectly by improving their physiological value and vitality. Iron, therefore, is of little use in cases where the natural power of sanguification is greatly reduced. Chlorosis is in striking contrast to the most severe forms of anæmia, both as regards its blood-lesion and its response to iron treatment. In chlorosis, the supply of young feebly coloured corpuscles is abundant, and the number of red discs but slightly below the normal. The average amount of hæmoglobin per corpuscle is greatly reduced, and the curative effect of iron is very rapid. On the other hand, in the most intense forms of anæmia, with great diminution in the number of corpuscles, and a high relative value of hæmoglobin, iron is practically useless.

1474. *Neale on Cancer of the Stomach.*—Dr. Richard Neale, in the *Practitioner*, July 1883, records a case illustrating the impossibility of arriving, in some instances, at a positive diagnosis between cancer of the stomach and idiopathic anæmia. The patient was a man aged 61, who for some time had been ailing; he was stout and very anæmic; the cardiac impulse was very weak, and he had extreme dyspnoea on the least exertion; he had no appetite, and had a feeling of uneasiness after eating, and often considerable flatulence. Two or three days after Dr. Neale first saw the patient he was suddenly sent for, as the man had fallen down and was supposed to be dead; a few whiffs of nitrite of amyl soon started respiration, and the patient vomited a quantity of matter like modified red-currant jelly. This drew special attention to the gastric symptoms; and the fact that one of

the patient's brothers had died from intestinal cancer, led to the case being diagnosed as one of malignant disease of the stomach. Three consultants, who saw the case at intervals of two months, considered it to be one of idiopathic anæmia; and for a time the patient improved remarkably in health, returning from the sea-side, after a stay of some weeks, a *new man*. It was then decided that he should reside near the sea, and a house was taken at Worthing; about three weeks after arriving there, hæmatemesis set in, the patient only living a few days. A *post mortem* examination made by Mr. Parish, of Worthing, disclosed a marked case of cancer of the stomach: a large growth occupied the posterior wall of the stomach, encircling the œsophagus, and extending to the pylorus. The growth was very soft, and infiltrated the muscles of the back; it was adherent to, but did not implicate, the spleen.

RICHARD NEALE, M.D.

1475. *Roberts on the Diagnosis of Perinephritic Abscess.*—In a paper on perinephritic abscess (*Amer. Jour. Med. Sci.*, April 1883), Dr. J. B. Roberts gives a tabular statement of symptoms to assist in the localisation of the disease, and its diagnosis. *All anterior regions.*—Pain, tenderness, swelling, œdema, and pointing in front and side of abdomen. *All posterior regions.*—Pain, tenderness, swelling, œdema, and pointing in loin. *Upper tracts.*—Pleuritic friction, pleural effusion, empyema, expectoration of pus; dyspnoea; suprarenal involvement; solar plexus involvement (on right side). Bilateral œdema of legs; jaundice; fatty stools; persistent vomiting; rapid emaciation; ascites. *Middle tracts.*—Albuminuria and casts; suprapubic, scrotal, or vulvar pain or anæsthesia; suppression of urine; uræmia; pus in the urine; œdema of scrotum or varicocele (especially in left side). *Lower tracts.*—Flexion of hip; pain or anæsthesia of front, inside, or outside of thigh; retraction of testicle; pain at knee; scrotal or vulvar pain or anæsthesia, without accompanying albuminuria; unilateral œdema of legs; abscess of sinus near Poupard's ligament; constipation (if left side); involvement of chyle receptacle (if right side.)

THE THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

1476. RAIMONDI.—Naphthaline as an Antiseptic. (*Rivista di Chim. Med. e Farm.*)
 1477. FERRER.—Alcohol in Trichinosis. (*Gaceta de los Hospitales.*)
 1478. AGUILAR Y LARA.—Kairina and Kairolina. (*Rev. di Med. y Cirurgia Practica*, July 7, 1883.)
 1479. BRUGNATELLI.—Treatment of Pneumonia by Cold Baths. (*Gazz. Med. Ital. Prov. Venete*, Sept. 22, 1883.)
 1480. Queirolo, G. B.—The Action of Pilocarpine on the Heart. (*Italia Medica*, June 1883.)
 1481. BIANCHI, R.—The Milk of the Bitch as a Therapeutic Agent. (*La Union de las Ciencias Medicas.*)
 1482. CASARINI.—Perchloride of Iron in Diseases of the Skin. (*Lo Spallanzani.*)
 1483. VIGAR, M.—Salicylate of Soda in Phlegmasia Alba Dolens. (*La Correspondencia Medica.*)
 1484. GUTTMANN.—The Antifebrile Action of Kairin. (*Berliner Klin. Wochens.*, July 30)

1485. ZABLUDOWSKI.—The Physiological Influence of Massage. (*Centralbl. für die Med. Wiss.*, April 7.)
 1486. EULENBERG.—Faradaic and Galvanic Baths. (*Deutsche Med. Wochens.*, April 25.)
 1487. KEMPNER.—Arsenic as a Prophylactic against Infectious Diseases. (*Wien Med. Blätter*, August 2.)
 1488. FREYMUTH and POELCHEN.—Kairin in Recurrent Fever. (*Deutsche Med. Wochens.*, 1883.)
 1489. BOEGEHOOLD.—The Treatment of Acute Vesical Catarrh. (*Deutsche Med. Wochens.*, August 29.)
 1490. LUDWIG.—On Kairin. (*Wiener Med. Blätter*, April 12.)
 1491. HARE.—Good Remedies out of Fashion. (*Brit. Med. Jour.*, July, p. 151.)
 1492. RINGER and SAINSBURY.—The Physiological Action of Barium Chloride. (*Brit. Med. Jour.*, August, p. 265.)
 1493. TAYLOR.—A New Method of Treatment in Cholera. (*Brit. Med. Jour.*, July, p. 69.)
 1494. LITHGOW.—Cascara Sagrada in Constipation. (*Brit. Med. Jour.*, July, p. 68.)
 1495. PHILLIPS.—The Treatment of Hay-fever. (*Brit. Med. Jour.*, July, p. 69.)
 1496. COOK.—Influence of Benzoates of Alkalies on the Excretion of Uric Acid. (*Brit. Med. Jour.*, July, p. 9.)
 1497. BOYCE.—Galium Aparine for the Relief of Cancer. (*Brit. Med. Jour.*, July, p. 14.)
 1498. MURRAY.—The Treatment of Cholera. (*Lancet*, July, p. 161.)
 1499. LOWDS.—Feeding of Patients in Cholera Collapse. (*Lancet*, July, p. 123.)
 1500. JENNINGS.—Intravenous Injections of Saline Fluids in Cholera. (*Lancet*, July, p. 125.)
 1501. NICHOLSON.—Turpentine in Secondary Syphilis and in Phagedenic Sores following Fever. (*Med. Times and Gazette*, Sept. 1883, p. 234.)
 1502. ALLAN.—Milk-diet in Enteric Fever. (*Lancet*, August, p. 302.)
 1503. Chloride of Lead as a Disinfectant. (*Ibid.*, August, p. 245.)
 1504. GIBBS, MURRAY.—The Treatment of Diphtheria by Blue Gum Steam. (*Ibid.*, Aug. 1883, p. 362.)
 1505. CUTTER.—The Therapeutics of Hot Water Drinking. (*Ibid.*, Sept. 1883, p. 454.)
 1506. TUSON.—Sulphur Fumigation in Cholera Districts. (*Ibid.*, Sept. 1883, p. 521.)
 1507. EDWARDS.—Sulpho-carbolate of Soda in Bee-stings. (*Ibid.*, September, p. 528.)
 1508. VINCENT.—Morphia for Sea-sickness. (*Brit. Med. Jour.*, August, p. 323.)
 1509. BAUGH.—Spiræa Ulmaria in Vesical and Prostatic Spasms. (*Canada Lancet*, and *Edin. Med. Jour.*, July.)
 1510. CULLEN.—Cereus Bonplandii. (*Virginia Med. Monthly*, and *Edin. Med. Jour.*, July.)
 1511. NELSON.—Veratrum Viride in Typhoid Fever. (*Archives of Med.*, April.)
 1512. CHVOSTEK.—The Treatment of Basedow's (Graves's) Disease. (*Centralbl. für Klin. Med.*, June 23.)
 1513. GOODELL.—Iron Lemonade. (*American Practitioner.*)
 1514. GOODELL.—The Treatment of Pelvic Peritonitis. (*New York Med. Times*, August 28.)

ART. 1476. *Raimondi on Naphthaline as an Antiseptic.*—Dr. C. Raimondi (*Rivista di Chimica Medica e Farmaceutica*) reviews at some length the therapeutic value of naphthaline as an antiseptic agent. After describing its physical and chemical properties, he points out that it has a strong affinity to benzole, inasmuch as it belongs to the $C_{10}H_{2n-12}$ series, naphthaline indeed being isomeric, with a double molecule of benzole minus H_2 , thus—benzole $2(C_6H_6) - H_2 =$ naphthaline $(C_{12}H_{10})$. Naph-

thaline appears to have been used as far back as 1842, when it was recommended by Dupasquier (*Jour. de Pharm. et de Chimie*) as an expectorant, and externally as a stimulant application; its antiseptic properties were first studied by Dr. E. Fischer (*Berliner Klin. Wochenschr.*, 1881) in the course of his investigations on the action of the vapours of different hydrocarbons on bacteria, &c. He found that naphthalene, applied to the skin or to the surface of wounds, was wholly innocuous, while it was quite efficient as a Listerian dressing. Applied in the form of powder to wounds or to foul ulcers, it renders them aseptic, or prevents septic changes; it is non-irritant and non-absorbable, so that no toxic effects can result from its use, as in the case of carbolic acid. The practical experience of its action was gained in the clinic and polyclinic of Prof. Lucke at Strasburg, not only by Dr. Fischer but by Dr. Bonning, who published his results (*Ueber die Wundbehandlung mit Naphthalin*, Strasburg, 1883). The advantages claimed for this substance seem to be, its cheapness, a kilogramme of pure naphthalene costing in Kehl 1fr. 25c.; its absolute harmlessness, and the ease with which it can be applied as a powder to any surface or into any cavity. In surgical dressings for children, and in cases complicated by nephritis, it is stated to be especially useful, especially where large surfaces are concerned, for there is no risk of carboloria. It is not, however, alleged that it can supersede carbolic acid preparations on all occasions. Being insoluble, it cannot be used to disinfect the hands or instruments during an operation; and Dr. Raimondi advises that in operation cases its employment should be preceded by a thorough antiseptic dressing with carbolic acid. Its insolubility is stated to be its only drawback, for its odour, though not precisely agreeable, can, nevertheless, be soon tolerated without inconvenience. Finally, as a general disinfectant, for which absolute purity of the material is not essential, it may usefully be sprinkled about, in hospitals and elsewhere, and for this purpose a still cheaper kind may be used.

1477. *Fever on Alcohol in Trichinosis*.—A case of trichinosis, in which the only treatment was the administration of alcohol in full doses, is reported by Dr. D. Vincente Ferrer (*Gaceta de los Hospitales*, Valencia). The patient was twenty-three years old, and it was probably the fifth week of the attack when the treatment was commenced. The attack was a severe one, with characteristic pulse, temperature, muscular pains, and rigidity; pulse, 124; temperature, 103° Fahr. The patient could neither flex the limbs nor stir from the supine position, and was considered by Dr. Ferrer and his colleagues to be in a critical condition. Six ounces of proof spirit (about 56 per cent. of rectified alcohol, R.) were given daily in sugared water in the intervals of feeding. Within twenty-four hours the temperature fell 8°, and the muscular rigidity was distinctly diminished. On the third day of the treatment the dose was increased to nine ounces, and on the fourth to twelve; but this quantity was not borne well, and it was reduced again to nine. On the sixth day, the patient was free from pain as he lay in bed, and could move some of the limbs without suffering. The alcohol was continued in the same doses, and from this date convalescence was established. He is stated to have been quite well eighteen days after the alcohol treatment was commenced. Dr. Ferrer considers that the effect was too marked and immediate to be simply a coincidence, but he offers no

opinion as to whether the drug affected the trichina, or the muscular fibres, or the reflex irritability of the nerves, or, finally, the areas of inflammatory intermuscular tissue.

WALTER PYE.

1478. *Aguilar y Lara on Kairina and Kairoline*. Dr. Aguilar y Lara reports four cases treated with these new antipyretics. 1. The first case was one of acute pneumonia *à frigore*, seen in the first stage, with the temperature 39°·5 C. (103°·1 F.); fifty centigrammes were administered in a wafer, the patient afterwards drinking copiously to dilute the medicine and to prevent its local action. After twenty-five minutes free sweating began, and after one hour the temperature had descended to 38°·4 C. (101°·1 F.). The medicine was continued every hour and a half. The thermometer on the following day marked 37°·5 C. (99°·5 F.), and the patient was much better. 2. A woman, whose general conditions were not very satisfactory, had pneumonia in the second stage with low delirium; temperature, 39°·9 C. (103°·8 F.). One gramme was administered every three hours. On the visit in the afternoon the temperature had descended to 38°·6 C. (101°·5 F.), and the delirium had disappeared. On the following morning the temperature had descended again to 39°·5 (103°·1), and the delirium had reappeared. Kairoline was then administered in the dose of 2 grammes (30 grains). On the next day the improvement was marked, and in eight days the patient was fairly convalescent. 3. Quotidian intermittent fever, which had lasted for a month in a woman, disappeared completely after two doses in the second stage of the fever. 4. Intense catarrhal fever (temperature 38°·5 C. = 101°·3 F.) in a man was treated by kairina with equally good result.

1479. *Brugnattelli on the Treatment of Pneumonia by Cold Baths*.—Brugnattelli reports eleven cases successfully treated by this method (*Rev. Med. dell' Istituto Lombard.*, July 1883). The patients bear the cold bath well; on immersion in water of 23° to 19° C. (73°·4 to 66°·2 F.) they experience a slight shiver, which soon passes off. These low temperatures are better borne when the patient is placed at once in the cold water, than when the water is gradually cooled down after his immersion. The pulse generally becomes slow and small; respiration is sometimes unaffected, sometimes hurried, more frequently diminished and deeper. The temperature often falls several degrees, and this fall lasts for some time. The general state is sensibly improved, the patient is much more calm, and generally sleeps for several hours. The bath seems to exercise a beneficial influence on the disease. In seven cases, the fever disappeared and resolution began on the sixth day, in two on the seventh. The bath probably hastens resolution in the lung. Contraction of the superficial vessels causes increased pressure in the deep vessels, while at the same time the heart is stimulated.

1480. *Queirolo on the Action of Pilocarpine on the Heart*.—The author draws his conclusions from graphic tracings and from the results of experiments on the arterial pressure, made by means of the apparatus of Basch. A few minutes after the hypodermic injection of pilocarpine, almost before the physiological effects show themselves, the ascending line is markedly raised; the intra-arterial pressure is at the same time lowered; the frequency of the pulse increases; after an interval of time, varying from one to two hours, the graphic ascending line descends below the height it had before the injection.

tion; at the same time the intra-arterial pressure is extraordinarily lowered, reaching the lowest figures of the apparatus. Pilocarpine must therefore be used with great caution in cardiac affections, as well as in diphtheria and acute diseases when the tendency is to adynamia.

1481. *Bianchi on the Milk of the Bitch as a Therapeutic Agent.*—After treating of rickets and its causes and of the inefficacy of the treatment usually employed, Dr. Bianchi (*La Union de las Ciencias Medicas*, of Carthage) recommends the employment of the milk of the bitch as an article of diet. Its use is justified theoretically and practically. After a comparative study of this milk and that of other animals he finds that it is much richer in nutritive materials and in sulphate of lime, which is entirely assimilated; hence it is especially valuable in rickets and tuberculosis. He has obtained striking results from its use. The great drawback to its employment is the difficulty of obtaining it in sufficient quantity.

1482. *Casariini on Perchloride of Iron in Diseases of the Skin.*—Dr. Casariini says that the local employment of the perchloride of iron is very useful in some chronic diseases of the skin either in the form of ointment, 1 to 3 parts to 30 of butter, or as a lotion, 1 part to 2 or 3 of water. It is of most use in subacute and chronic psoriasis, eczematous lichen, and eczema. In simple and hæmorrhagic purpura it is very efficacious, and in scrofulous and syphilitic ulcers.

1483. *Vigar on Salicylate of Soda in Phlegmasia Alba Dolens.*—D. Miguel Vigar (*La Correspondencia Medica*) says that of four cases of phlegmasia alba dolens which he has had occasion to treat, in the first with the topical remedies usually employed he obtained no result attributable to the medication, since the patient remained in bed two months; and that in the other three having employed the salicylate of soda, in the dose of 4 grammes (60 grains) a day, he noticed in all from the first day of taking the medicine notable diminution of the fever and œdema. Neither of these patients passed more than twenty-one days in bed, and no œdema, nodosities, or thickening of the lower limb remained.

G. D'ARCY ADAMS, M.D.

1484. *Guttmann on the Antifebrile Action of Kairin.*—Dr. Paul Guttmann (*Berliner Klin. Wochenschr.*, July 30) has, at considerable length, given the results of a series of observations on the influence of kairin upon patients suffering under various febrile affections. The number of patients was forty-two, including cases of pneumonia, measles, phthisis, typhus, scarlet fever, pleurisy, peritonitis, erysipelas, ague, and septicæmia. The kairin was administered daily, from morning until evening, in hourly or half-hourly doses of half a gramme to one gramme each. The temperature was taken, both in the axilla and in the rectum, half-hourly. In about three or four hours the temperature was reduced to a normal degree, but rose again on the withdrawal of the medicine, the effects of which soon passed off. Perspiration, more or less profuse, was induced. Simultaneously with the fall in temperature was a reduction in the force and frequency of the pulse. The urine became of a dark green or black colour, which lasted for about thirty-six hours. The effect of kairin passes off rapidly, leaving the disease unaltered.

1485. *Zabludowski on the Physiological Influence of Massage (Shampooing).*—Dr. Zabludowski, of

Berlin (*Centralbl. für die Med. Wiss.*, April 7), in November 1881, during twenty days, made observations upon the effects of massage as practised on three healthy individuals, viz., himself, 30 years of age; his servant, aged 20; and his housekeeper, aged 47. All were under the same circumstances as to food and dwelling. For two weeks previously, note had been made that the same quantities of nitrogenous substances taken had been maintained. During eight days a careful record was kept of the weight of the body, the muscular power, the bodily temperature (of rectum and axilla), the frequency of the pulse and respiration, the quantity and quality of the urine, and the daily number of stools. During the first eight days the observations were made without massage; then from ten days with, and lastly, for eight days again without massage. In all the cases, muscular power was augmented. The regularity of action of the intestines was also promoted. Appetite was increased, bodily and mental vigour were increased, and sound refreshing sleep was induced. Comparative experiments on lower animals at the Physiological Institute were attended with very similar results.—[The results of the observations by Dr. Weir Mitchell, of Philadelphia, have been to show increase of muscular power and of vigour of the circulation from massage, skilfully employed. Several cases also of the benefits to be derived from this treatment in functional neurasthenia are related by Dr. Beresford Ryley in the *Lancet*, June 2.—*Rep.*]

W. B. KESTVEN, M.D.

1486. *Eulenbergs on Faradaic and Galvanic Baths.* At a meeting of the Berlin Medical Society (*Deutsche Med. Wochenschr.*, April 25) Herr Eulenbergs spoke on the action of faradaic and galvanic baths. There is a considerable difference between the two in certain respects. Faradaic baths diminish the sensibility of all parts of the body, even of those parts which are not under water. The same is the case in galvanic baths, when the cathode is in the water, and the patient holds the anode, but sensibility is increased when their positions are reversed. The sense of touch is increased in both forms; the sense of locality in faradaic baths, and in those parts of the body which are immersed in galvanic baths: those parts out of the water in galvanic baths presenting a diminished sense of locality. The pulse is retarded in both baths, respiration is unaffected, and the temperature falls 0.2 to 0.4 C. Motility was found to be diminished in galvanic baths, and contractions could be induced only by very strong currents. From his experiments, Herr Eulenbergs draws the conclusion that faradaic baths are useful as a stimulant to the skin, and that galvanic baths (cathode in the water) may be used where a diminution of motility or sensibility is desired, as in cholera or neuralgia. He made all his experiments with one pole in the water, while the patient held the other; and he found that the intensity of the results varied with the distance of the pole from the body of the patient.

1487. *Kempner on Arsenic as a Prophylactic against Infectious Diseases.*—In consequence of the publication of Buchner's pamphlet, recommending arsenic as a prophylactic against infectious diseases (*LONDON MEDICAL RECORD*, July 1883), Dr. Kempner has made some experiments with the administration of arsenic to phthisical subjects (*Wiener Med. Blätter*, Aug. 2). He has given it to the amount of one centigramme ($\frac{1}{10}$ gr.) a day, in five doses, this amount being reached gradually, and he finds that it greatly

improves the subjective symptoms, having a markedly good influence on the appetite. Neither the cough nor the expectoration is influenced with any degree of regularity, and the sweating does not diminish so rapidly as under the use of atropine; but the patients do not lose in weight during the use of the drug, and some have gained considerably.

1488. *Freytmuth and Poelchen on Kairin in Recurrent Fever.*—Drs. Freymuth and Poelchen, in concluding a report on the action of kairin in recurrent fever, which has appeared in several numbers of the *Deutsche Med. Wochens.*, give it as the result of their experience that kairin administered during the attack lowers the temperature, but has no influence on the spirilla, which go on developing unaffected by it. In the intervals, however, it seems to have an effect on what may be shortly termed the spores, and the next attack is either prevented or rendered much milder in character, with very few spirilla. If the micro-organism of other diseases is affected in the same way, kairin or a similar substance will serve only as a prophylaxis in germ fevers, and not as a cure when they are once established. It will be of more service, the more marked the stage of invasion happens to be.

1489. *Boegehold on the Treatment of Acute Vesical Catarrh.*—Dr. Boegehold, of Berlin, communicates a paper to the *Deutsche Med. Wochens.* of Aug. 29, on the treatment of acute vesical catarrh. In cases where chlorate of potash has been of no avail, he has found salicylic acid and salicylate of soda to effect a cure. He discovered this treatment accidentally during the course of a case of articular rheumatism, complicated by catarrh of the bladder, the result of the same chill, and he has since proved it in other cases. He is inclined to think that salicylic acid is as much a specific for rheumatic and gonorrhoeal catarrh as for articular rheumatism.

1490. *Ludwig on Kairin.*—In an article on kairin (*Wiener Med. Blätter*, April 12), Dr. Ludwig, of Vienna, after mentioning some details of its discovery and preparation, gives some of his experiences in determining its nature, and in investigating its behaviour in the body. He finds that only a very small quantity is recovered unchanged from the urine; that the urine of patients taking kairin is never albuminous, but that a large number of bacteria have been present in all the cases which he has investigated, very soon after it has been passed, showing that kairin must in some way supply favourable conditions for their development.

ALICE KER, M.D.

1491. *Hare on Good Remedies out of Fashion.*—Dr. Hare, in an address delivered before the Metropolitan Counties Branch of the British Medical Association (*Brit. Med. Jour.*, July 1883, p. 151), recalls some of the old-fashioned modes of treatment, and asks the younger members of the profession to consider carefully some of them, before they decide to discard them altogether. Dr. Hare remarks that he has lived to see the fulfilment of his statement, that the pendulum of public opinion on the question of alcoholic stimulants would swing in an opposite direction. Twenty-five years ago the use of alcohol was rampant; now it is giving way to the more rational plan of supplying nourishment in the form of milk. The administration of an emetic, in days gone by, was the commencement of treatment in many diseases, but now most avoid giving an emetic, fearing the depression produced by

it, which, says Dr. Hare, is more theoretical than practical. Opium, too, one of the most useful of all remedies in many cases of heart-disease, is never given by many men for reasons also more theoretical than practical. With regard to purgatives, there has not been that extreme variation, but of late years the fashion has been to neglect them far too much. Another remedy, which, though much abused by over-use in olden times, is now suffered to almost die out, is venesection; many cases that nowadays would be benefited by this treatment are allowed to go on untreated, on account of the prejudice against this mode of procedure. Dr. Hare's paper ought to be carefully read by every member of the profession, being a most valuable review of the mode of treatment of disease during the last forty-five years.

1492. *Ringer and Sainsbury on the Physiological Action of Barium Chloride.*—Drs. Ringer and Sainsbury, in the *Brit. Med. Jour.*, Aug. 1883, p. 265, contribute an article on the action of barium chloride; experiments have been also made by Boehm as to the action of this drug which show the systolic heart, the retarded pulse-rate, and the heightened blood-pressure, resulting from the action of barium chloride. Dr. Ringer's results are these. 1. The systolic heart and the retardation occur equally when the centres of reflex control are destroyed. 2. The local application of the salt in diluted solution, to the heart *in situ*, produces local spasm at the point of application; and the excited heart is arrested in full systole by the drug. 3. The vessels freed from the central nervous control respond to the direct action of the salt. 4. They were unable to influence the calibre of the vessels through the nerves apart from direct local action. That there is a marked resemblance in action between barium chloride and digitalis, scarcely needs to be pointed out. The therapeutic value of the drug yet remains to be determined. [Since the value of barium chloride was demonstrated by Dr. Kennedy in 1873, several interesting papers have appeared in the journals that may be read with greater interest after Drs. Ringer and Sainsbury's investigations. Vide *Medical Digest*, sect. 272: 2.—*Rep.*]

1493. *Taylor on a New Method of Treatment in Cholera.*—Mr. H. C. Taylor, in the *Brit. Med. Jour.*, July 1883, p. 69, introduces a new treatment, as an adjunct to those generally carried out in cases of cholera. It consists in injecting the active principle of bile, the substance called bilin, into one of the veins of the arm. The salt which forms the best means of introducing bilin into the blood is taurocholate of soda. Taurocholate of soda is prepared by submitting a solution of taurocholic acid (bilin), to the action of carbonate of soda. The quantity introduced in twenty-four hours should be 100 grammes, dissolved in a litre of water at the temperature of the blood; that quantity corresponds to the bile usually secreted by the liver.

1494. *Lithgow on Cascara Sagrada in Constipation.*—Dr. Douglas Lithgow, in the *Brit. Med. Jour.*, July 1883, p. 68, writes to say that he has found cascara sagrada a most valuable drug. It seems to act as a tonic to the pneumogastric and sympathetic supplies of the primæ viæ, aiding the general processes of digestion, whilst it especially promotes those of nutrition and assimilation. In cases of chronic constipation, associated with hæmorrhoids, cascara sagrada is of especial service; it seems to exercise a soothing effect upon the rectal

mucous membrane. Small doses, frequently repeated, act better than large doses.

1495. *Phillips on the Treatment of Hay-Fever*.—Mr. W. F. Phillips, in the *Brit. Med. Jour.*, July 1883, p. 69, recommends the use of belladonna in the treatment of hay-fever. The following prescription is given: *R. Succi belladonnæ ℥xxiv., aquam ad ʒij.* A teaspoonful to be taken every hour till relief is obtained. In cases where the eyelids are especially tender, the patient can use the mixture as a lotion to the affected parts, and will find great relief.

1496. *Cook on the Influence of Benzoates of Alkalies on the Excretion of Uric Acid*.—Mr. Alleyne Cook, in the *Brit. Med. Jour.*, July 1883, p. 9, records some experiments he made on the influence of benzoates on the excretion of uric acid, and comes to conclusions different from those of Dr. Garrod, published in the *Journal*, April 1883. Mr. Cook found that the excretion of uric acid was not lessened, but that the presence of a benzoate, or even of benzoic acid, can prevent the crystallisation of uric acid from urine, and does not destroy it.

1497. *Boyce on Galium Aparine for the Relief of Cancer*.—Mr. Boyce, in the *Brit. Med. Jour.*, July 1883, p. 14, refers to Dr. Quinlan's paper in the *Journal* of June 16 on the use of galium aparine in the treatment of chronic ulcers. Mr. Boyce says that it is also used with great benefit in some parts of England in cases of mammary cancer; it has the reputation of reducing the size and diminishing the pain of the cancer, and also arrests the ulcerative action.—[Many years ago, Dr. Winn recommended galium in the treatment of cancer.—*Rep.*]

1498. *Murray on the Treatment of Cholera*.—Dr. J. Murray, in the *Lancet*, July 1883, p. 161, recommends the use of the following prescription in the treatment of cholera: one drachm and a half of hydrate of chloral, one drachm and a half of bicarbonate of soda, one ounce of compound camphor tincture, half a drachm of tincture of capsicum, half a drachm of hydrocyanic acid, water to eight ounces; one tablespoonful to be given immediately on seeing the case, and a dessertspoonful every fifteen to thirty minutes afterwards. For the board-like feeling of the muscles during cramp, flannels wrung out of warm water, and sprinkled with strong solution of hydrate of chloral, should be applied to the abdomen, over the kidneys, legs, and hands, with such adjuncts as might be thought useful. [Very satisfactory results are asserted to have been produced by the use of chloral hypodermically, so much so that in sect. 928:6 of the *Medical Digest* may be seen a very strong recommendation to 'try it.'—*Rep.*]

1499. *Lownds on Feeding of Patients in Cholera Collapse*.—Dr. Lownds, in the *Lancet*, July 1883, p. 123, brings before the profession a form of nourishment which may be absorbed by the physical action of osmosis, during the collapse stage of cholera. The mode in which it is prepared is as follows. Mix eight ounces of recently killed meat, chopped fine, with eighteen ounces of distilled water, to which have been added four drops of pure hydrochloric acid, and from half to a drachm of common salt. Stir with a stick, and after half an hour throw on a hair sieve. The red soup thus obtained, given in doses of an ounce every half hour, has proved most beneficial in many outbreaks of cholera.

1500. *Jennings on the Intravenous Injection of Saline Fluids for Cholera*.—Dr. Jennings, in the

Lancet, July 1883, p. 125, draws attention to the practice of injecting saline solutions into the veins of cholera patients. Reference is made to the results obtained by Dr. Little many years ago, and also to a case in which Sir Spencer Wells and Mr. Bennett injected a saline solution into the veins of a man apparently dead, the operation being followed by a return of pulsation, warmth, and consciousness, which lasted some hours, but the patient eventually died. [To those interested in the subject, a reference to sect. 923:3 of the *Medical Digest* will afford a fund of information upon this subject, as well as to all that has been suggested for the treatment of cholera during the last thirty years or more.—*Rep.*]

1501. *Nicholson on Turpentine in Secondary Syphilis and in Phagedenic Sores following Fever*.—Dr. Nicholson, in the *Med. Times and Gazette*, Sept. 1883, p. 234, records a few cases in which he found drachm doses of turpentine a very successful mode of treating syphilitic patches. A case is also recorded of a boy, aged 10, in West Australia, who suffered from continued fever, complicated with two slowly progressing phagedenic sores on the leg. Nothing seemed to do so much good as turpentine taken internally and applied locally.

1502. *Allan on Milk-diet in Enteric Fever*.—Mr. Allan, in the *Lancet*, Aug. 1883, p. 302, in a letter to Professor Gairdner, says that he knows nothing which can take the place of milk in enteric fever. If the patient be very thirsty, the milk must be diluted; and also, if vomiting come on, it indicates that the milk must be used diluted. As to the quantity required daily, Mr. Allan remarks that no fixed amount can be laid down, but is inclined to put the allowance at four pints. [Is not this an excessive quantity?—*Rep.*] At p. 487 a correspondent draws attention to the fact that often, after an exclusive milk-diet for three weeks, or thereabouts, the temperature still remains high without any obvious cause; if, then, all enteric symptoms being absent, the diet be changed to soup or meat, the temperature at once falls.

1503. *Chloride of Lead as a Disinfectant*.—In the *Lancet*, Aug. 1883, p. 245, an article appears on the use of chloride of lead as a disinfectant. It was suggested by the late Dr. Goolden several years ago (vide *Medical Digest*, sect. 292:5). Chloride of zinc, however, is very much cheaper. Each will absorb sulphuretted hydrogen and ammonia, to take two typical gases, and yet neither has any smell of its own. Carbolic acid does not destroy, but only masks foul smells. Lead salts, besides being expensive, are blackened by sulphuretted hydrogen, which is a disadvantage. An objection, however, both to chloride of zinc and chloride of lead is, that neither is volatile, and that, having no odour, they are often taken internally by mistake.

1504. *Gibbes on the Treatment of Diphtheria by Blue Gum Steam*.—Dr. Murray Gibbes in the *Lancet*, Aug. 1883, p. 362, reports thirty-seven cases of diphtheria cured by saturating the atmosphere of the room in which the patient was placed, with the vapour of the eucalyptus globulus. The atmosphere must be constantly loaded with steam, and the vapour of the eucalyptus is obtained by pouring boiling water on the dried leaves. To assist nature in throwing off the membrane, Dr. Gibbes uses a solution of steel and glycerine, with which he brushes the throat, when the membrane is loose enough to come away easily. [Dr. Mosler, in 1879, spoke strongly of the vast value of eucalyptus inhala-

tions in severe cases of diphtheria. Vide *Medical Digest*, sect. 824: 1.—*R. p.*]

1505. *Cutter on the Therapeutics of Hot Water Drinking*.—Dr. Cutter, in the *Lancet*, Sept. 1883, p. 454, contributes an article on the origin and use of drinking hot water at a temperature of 150° F. The practice dates back to 1858, when Dr. Salisbury, of New York, published a series of experiments on feeding animals to ascertain the relations of food as a cause and cure of disease. The hot water excites normal downward peristalsis of the alimentary canal, and causes the bile to be eliminated by the bowels and not through the blood, by way of the kidneys. One or two hours before each meal, and half an hour before retiring to bed, the water should be sipped, and not drunk too fast. It should be continued daily for about six months, and may be made palatable by flavouring it with ginger, lemon-juice, &c. In many cases of consumption, Bright's disease, diabetes, &c., the improved condition of the patient is very striking. Not less than three pints daily is the allowance; and the specific gravity of the urine, which ought to be brought to 1.018 or thereabouts, is the guide to the quantity required.

1506. *Tuson on Sulphur Fumigation in Cholera Districts*.—Dr. Tuson, in the *Lancet*, Sept. 1883, p. 521, writes saying that since 1872 he has steadily advocated the plan of disinfection of cholera districts by sulphur fumigation, and credits himself with being the first to initiate this plan of disinfection. In 1882, when cholera was very virulent at Dumdum, sulphur fires were adopted extensively. The disease ceased in a most marvellous manner, and not a single case occurred in the Border Regiment stationed there.

1507. *Edwards on Sulpho-carbulate of Soda in Bee-stings*.—Mr. Edwards, in the *Lancet*, Sept. 1883, p. 528, reports the case of a lady, aged 40, who consulted him for a bee-sting upon the upper part of the forehead. A hot soda bath, a saline aperient, and a lead lotion to be applied on the face were ordered. Next morning the patient was extremely excited, and at times delirious; the head and neck were enormously swollen; the upper and lower extremities were cold, stiff, and also much swollen; pulse almost imperceptible; breathing laboured. Mr. Edwards administered fifteen grains of the sulpho-carbulate of soda in an ounce of water, and ordered it to be repeated every four hours. After the second dose the swelling and other symptoms diminished rapidly in intensity; she became bathed in a profuse perspiration, and, with the administration of several more doses, the patient steadily progressed towards convalescence.

1508. *Vincent on Morphia for Sea-sickness*.—Mr. Vincent, in the *Brit. Med. Jour.*, Aug. 1883, p. 323, writes that the hypodermic injection of morphia is almost invariably attended with much benefit to the sufferers from sea-sickness. Dried toast, soaked in strong tea, without sugar or milk, is often retained when everything else has been rejected. Nitrite of amyl and bromide of potassium, Mr. Vincent considers useless. [Morphia has, since Dr. G. Johnson recommended it in 1869, found many advocates. Vide *Medical Digest*, sect. 858: 3; and at page 270 of the *Journal*, the injection of laudanum into the rectum is stated to be a panacea for the evil.—*Rep.*]

RICHARD NEALE, M.D.

1509. *Baugh on Spiraea Ulmaria in Vesical and Prostatic Spasms*.—Dr. Baugh, of Hamilton, Canada, writes in the *Canada Lancet* for August 1882; *Edin.*

Med. Jour., July 1883, that the use of spiraea ulmaria (queen of the meadow) has given him remarkable results in three cases of senile enlargement of the prostate gland. He was called to see T. B., aged 68, of London, Canada, and found him suffering from retention of urine. Dr. Baugh had him put immediately in the hot hip-bath, the hot water coming well over the pubes, and administered a drachm of paregoric and twenty drops of Hoffman's anodyne every thirty minutes. He remained in the bath about fifteen minutes, when hot wet cloths were applied over the bladder. Nearly two hours elapsed before this treatment had the desired effect. After the bladder had been evacuated, hypertrophy of the prostate was found on examination *per anum*. A No. 10 catheter glided into the bladder without difficulty. Two weeks subsequently, Dr. Baugh was called again to the same patient. The former method of treatment failed, and the catheter could not be introduced. An old woman suggested a dose of queen of the meadow (the common name for *Spiraea ulmaria*), and said that, if the patient could get it, it would cure him quickly. Some was brought, an infusion was made, and half a pint given to the patient; and in fifteen minutes he desired to micturate, and emptied his bladder without difficulty. Since that time, the patient has needed no medical or surgical aid to rid him of his old enemy. If his old trouble threaten him, he takes queen of the meadow tea and rejoices in being saved. In two other cases of this nature, in which Dr. Baugh used this drug, the results were just as satisfactory. He has tried it on himself in health, and found that it acts as a diuretic and astringent, sometimes causing smarting pain as the urine passes along the urethra. Its antispasmodic properties are very marked on the sphincter vesicæ, and Dr. Baugh thinks that much of its virtue in the affection named results from its power to overcome the contraction of the neck of the bladder arising from irritation in the prostatic region.

1510. *Cullen on Cereus Bonplandii*.—Dr. Cullen (*Virginia Med. Monthly*, and *Edin. Med. Jour.*, July) states that this is one of the many species of cactus, and that he has tried it in several cases of functional heart-disease. One of his cases has been at death's door several times, and has recovered under its use. The symptoms were shortness of breath, inability to lie down, great frequency of pulse, flushing of face, lips and fingers almost stagnant with blood. Having tried digitalis and bromide of potassium without success, he gave the fluid extract of *Cereus Bonplandii* in fifteen-drop doses. In half an hour he repeated the dose. The action of the heart moderated, and from 125 gradually came down to ninety pulsations in the minute, or even less. In two cases there was suppression of urine, which warm baths and acetate of potash failed to relieve; and in conjunction hair-cup moss was given, half a drachm of the fluid extract at a dose, every two hours. In one case the kidneys commenced acting, and over a gallon of urine passed during the next twenty-four hours. He does not believe the patient would have lived twenty-four hours without the use of the latter remedy. The author believes that this combination is the best where the urine is scanty and albuminous, and drowsiness indicating coma is apparent. The few cases of benefit already have led him to believe that both drugs will be more freely used in similar cases.

1511. *Nelson on Veratrum Viride in Typhoid Fever*.—Dr. A. W. Nelson (*Archives of Med.*,

(April) strongly endorses the treatment of typhoid fever by veratrum viride, his observations being based upon twenty-eight successive cases in private practice, all of which recovered. The most obvious beneficial effects were manifested in the reduction of the pulse and temperature, and during this treatment these should be carefully watched. The preparation is the official tincture, and the dose is from one to two minims each hour, up to five or more. This is given from the onset of the disease to convalescence. The elimination of the veratrum viride is rather rapid, so that the patients were usually under the influence of from three to twelve drops continuously. Sometimes the medicine was given only every two hours at night. The entire quantity in twenty-four hours would be from twenty to forty-eight drops, and this would be continued for from ten to fourteen days. Dr. Nelson concludes that the use of veratrum viride tends to shorten the duration of typhoid fever, so that many cases terminate at twelve days, some at fourteen or fifteen, a smaller number at three weeks, the results being more definite and satisfactory than under any other plan of treatment.

1512. *Chvostek on the Treatment of Basedow's (Graves's) Disease.*—From an experience in upwards of seventy cases, and fortified by the unanimous observations of Von Dusch, Eulenburg, Meyer, Erb, and others, Dr. Chvostek (*Centrbl. für Klin. Med.*, June 23) is led to regard the rational employment of galvanism as the most important part of the treatment of Basedow's disease. He recommends the following method to be pursued: 1, the ascending constant current applied to the cervical sympathetic, on each side, for at the most one minute; 2, the same to the spinal cord (the anode at about the fifth dorsal spine, the cathode high up in the cervical region); 3, through the occiput (one pole at each mastoid process), and in certain cases also through the temples, a constant current, for, at the longest, one minute, and so weak that the patient can feel but the slightest sensation of burning. Sometimes also local galvanisation of the thyroid gland with a weak constant current is applied for about four minutes, the current being reversed at the end of each minute. The applications should be made every day, if possible. As a rule, very good results were obtained, even in the most severe cases a cure or marked improvement being recorded. In three cases, death resulted from excessive anæmia or from complications.

1513. *Goodell on an Iron Lemonade.*—The effect of prescribing disagreeable medicines, says the *American Practitioner*, for some classes of patients, and especially the roving class which is often met with in hospital practice, is well known. Sometimes an artifice in the shape of a *pleasant* medicine is useful in securing the return of a patient whom it is desired to see again. The following formula for a 'lemonade of iron' prescribed in a case of this kind was recently mentioned in a clinical lecture by Professor Goodell, of Pennsylvania University:—*R. Tincturæ ferri chloridi, ʒij.; acidi phosphorici diluti, ʒvi.; spiritus limonis, ʒij.; syrupi, ad ʒvi.* A dessertspoonful is given in water after meals.

1514. *Goodell on the Treatment of Pelvic Peritonitis.*—Dr. Goodell, in the *New York Med. Times* of Aug. 28, in a clinical lecture on a case of this disease, thus describes his treatment. He advises to lay aside all small doses, and treat the case heroically. In the first place, as much morphia is given as

is necessary to relieve the pain, if a hypodermic injection of morphia be chosen at first; but he prefers the use of opium by the rectum. He has never given less than one grain of the aqueous extract of opium. It is a very good plan to add belladonna by the rectum, but it should not be put in the same suppository as the opium. Belladonna is very good for the urinary tenesmus, and it also has effect in lessening the inflammation. The opium must be pushed, but the belladonna cannot. He also gives large doses of quinine, giving in bad cases 10 grains every four hours until the patient is completely cinchonised and is deaf. He next puts a large poultice of flaxseed or corn-meal over the abdomen. If this be covered with India-rubber or a piece of brown paper greased with lard, it will keep moist and warm for twelve or twenty-four hours, for the rubber or greased paper retains the heat, and the temperature in these cases is always elevated, running up to 103° F. or 104° F. in the evening, and down to 101° F. in the morning. After the brunt of the disease has been passed, the use of blisters must be commenced. In this case the worst is passed; the temperature is, he is sure, not under 100° F. He blisters the patient. He always uses cantharidal collodion. He paints a blister, for instance, 3 inches by 4 inches, putting on three or four layers, and then at once puts over this a poultice. This is an almost painless way of raising a blister. He has never seen it produce strangury. Now in a case of frank inflammation—such as that produced by a sound, where there is nothing of a concealed character—this treatment will subdue it, but if the peritonitis be produced by sponge-tents the case is a bad one. He is sometimes called in consultation to a case of peritonitis by some of his students, and they tell him—'I am giving quinine just as you direct us. I am giving two grains every three or four hours.' Less than five grains should never be given. Certain nervous symptoms will be found present. The woman will be weak and trembling, ready to burst out crying. In such cases he very often gives large doses of the bromides, from 60 grains to 100 grains in the twenty-four hours. If the cases be treated in this heroic way, they will in the great majority be cured at the very beginning of the disease.

OPHTHALMOLOGY.

RECENT PAPERS.

1515. SIMI.—On Purulent Ophthalmia. (*Atti della Assoc. Ottalm. Ital.*, and *Annali Univ. di Med.*, June 1883.)

1516. ANGELUCCI.—Ophthalmometric Researches to determine the Irregular Astigmatism of Conical Cornea. (*Ibid.*, June 1883.)

1517. GUARITA.—The Treatment of Ulcerative Keratitis of Infective Origin. (*Ibid.*, June 1883.)

1518. GRADENIGO.—Massage in the Treatment of Diseases of the Eye. (*Ibid.*, June 1883.)

1519. ROSMINI.—The Treatment of Sympathetic Ophthalmia. (*Ibid.*, June 1883.)

1520. GRADENIGO.—Antiseptic Prophylaxis in Operations on the Eye. (*Atti della Assoc. Ottalm. Ital.*, and *Annali Univ. di Med.*, June 1883.)

1521. HIRSCHBERG.—Pigmentation of the Sclerotic and its Pathological Significance. (*Gräfe's Archiv.*, Band xxix., and *Centrbl. für die Med. Wiss.*, July 21.)

1522. DEUTSCHMANN.—Blindness from Direct Sunlight. (*Ibid.*, Band xxviii., and *Centrbl. für die Med. Wiss.*, April 28.)

1523. SAKOVITCH, D.—An Ophthalmologic Note. (*Uceno-Mediz. Jurnal*, 1882, ii., p. 190).—Cases of High Visual Acuity. (*Vratch*, 1883, No. 1, p. 12.)

1524. SZOKALSKI.—A Rare Case of Symblepharon. (*Medycyna*, 1882, No. 9.)

1525. Prevention of Ophthalmia Neonatorum. (*Wien. Med. Blatter*, Aug. 2.)

1526. ULRICH.—Typical Retinitis Pigmentosa, with Congenital Anomalies of the Vitreous Body. (*Klin. Monatsbl. für Augenheilk.*, April.)

1527. UNTERHARNSCHIED.—The Treatment of Trachoma of the Conjunctiva. (*Klin. Monatsbl. für Augenheilk.*, February.)

1528. SCHADOW.—The Eyes of the School Children in Borkum. (*Zehender's Klin. Monatsbl. für Augenheilk.*, 1883.)

1529. SCHMIDT-RIMPLER.—The Development of Cataract. (*Zehender's Klin. Monatsbl. für Augenheilk.*, May.)

ART. 1515. *Sini on Purulent Ophthalmia*.—After having compared the most recent methods of treatment, the author comes to these conclusions (*Atti della Assoc. Ottalmol. Ital.*, 1882; *Annali Univ. di Med.*, June 1883). 1. Neither with the method of Dor (tannic acid and benzoate of soda) nor with iodoform, are better results obtained than with the classical treatment with nitrate of silver. 2. Resorcin is the best antiseptic in ocular therapeutics. 3. No treatment can claim to be a specific cure, and none gives better results than those obtained with nitrate of silver. In the discussion which followed the reading of the paper, nothing was advanced to modify these views: it was agreed that nitrate of silver is still the best means that we have to combat the ophthalmic blennorrhoea of infants. Nitrate of silver and plentiful irrigation with distilled water, as Gradenigo advises, are still the best antiseptics, and offer the best hopes of cure. Resorcin, as an auxiliary of treatment, met with much favour.

1516. *Angelucci on the Irregular Astigmatism of Conical Cornea*.—The author, continuing the researches of Raehlmann, adds the following results (*Atti della Assoc. Ottalmol. Ital.*; *Annali Univ. di Med.*, June 1883). 1. In every conical cornea there exists an irregular astigmatism. 2. In the same meridian there are a central, a median, and a peripheral astigmatism; the force of the astigmatism decreases progressively from the centre to the periphery. 3. In the majority of cases, the visual axis does not correspond with the axis of the cornea. The practical aim of the author's researches is to enable us to substitute, in given cases, for the correction of the astigmatism from conical cornea, a system of conical or hyperbolic lenses, the exact scale of which cannot yet be obtained, but which nevertheless would afford the eye a great advantage in acuteness of vision.

1517. *Guaia on the Treatment of Ulcerative Keratitis of Infective Origin*.—Dr. Guaia (*Atti della Assoc. Ottalmol. Ital.*; *Annali Univ. di Med.*, June 1883), having tried many antiseptics, finds boracic acid the best. Boracic acid in a 3 or 4 per cent. solution was well borne, both as a local application and as spray. The author at the same time made use of an ointment composed of 20 centigrammes of eserine, 1 gramme of boracic acid, and 20 grammes of vaseline. This was especially useful in sluggish ulcers, less in catarrhal and rodent. These last must always be treated by linear incision of the cornea.

1518. *Gradenigo on Rubbing in the Treatment of Diseases of the Eye*.—This subject had been brought

before the Congress of Naples by Gradenigo; he again read a paper on it in the meeting of the Ophthalmological Association in Padua (*Atti della Assoc. Ottalmol. Ital.*; *Annali Univ. di Med.*, June 1883). He considers rubbing, when used intelligently, a very valuable help in treatment. He had at first limited its employment to affections of the lids, but afterwards used it in affections of the eyeball, especially with the scope of diminishing tension. He related the case of a lady in whom, by this mechanical means, he cured a severe attack of exophthalmitis, accompanied by intense pain. He believes, as the result of his observations, that rubbing is useful in diseases of the lids, of the muscles, of the bulb with increased internal tension, and, lastly, in affections of the optic nerve itself in the orbital cavity, and perhaps even when there is effusion into its sheath. By rubbing, the venous circulation of the orbit and globe is favoured, and in this way the beneficial action is exerted.

1519. *Rosmini on the Treatment of Sympathetic Ophthalmitis*.—The author (*Atti della Assoc. Ottalmol. Ital.*; *Annali Univ. di Med.*, June 1883) is of opinion that sympathetic ophthalmitis is not always due to malignant uveitis, but that often it must be considered as the effect of simple nervous irritation, and that, even without a wound or presence of a foreign body, an affection spontaneously developed in the eye may provoke and maintain, by reflex action only, a sympathetic form. It is often dangerous to delay the enucleation of the bulb. When the patient is opposed to enucleation, he advises iridectomy and extraction of the lens, but even in these cases he has been obliged finally to propose enucleation, which was less advantageous than if it had been done sooner. He concludes that every operation, with the exception of enucleation, aggravates the disease. Contrary to what was sustained at the International Congress in London, he preferred enucleation even in glaucomatous degeneration. In one case, although sclerotomy was performed, and in another neurotomy, he was obliged to perform enucleation.

1520. *Gradenigo on Antiseptic Prophylaxis in Operations on the Eye*.—In a work already published, Professor Gradenigo has treated of this subject, insisting that the best prophylactic and antiseptic treatment is that with simple and copious injection with distilled water before, during, and after, the various operations in the eye and its appendages. In this paper (*Atti della Assoc. Ottalmol. Ital.*, and *Annali Univ. di Med.*, June 1883) he confirms his previous statements with fresh experience and matter, and gives an account of a grave epidemic of follicular conjunctivitis, which attacked over 300 soldiers, cavalry and artillery, in the garrison of Padua. He found that the disease was caused by the dust raised in the grooming and currycombing the horses, irritating the conjunctiva and penetrating its folds. The cases all did well under his method of copious irrigation with distilled water.

G. D'ARCY ADAMS, M.D.

1521. *Hirschberg on Pigmentation of the Sclerotic, and its Pathological Significance*.—Microscopical pigmentary cells exist normally in the human sclerotic, near the entrance of the optic nerves and the junction of the cornea. Liebreich has observed instances of congenital macroscopic partial pigmentation, to which he has given the name of *cyanosis bulbi*. Prof. Hirschberg (*Gräfe's Archiv*, Band xxix., and *Centralbl. für die Med. Wiss.*, July 21) relates three cases of this condition.

The first example was observed in the right eye of a patient seventeen years of age, having a dark iris; around this dark violet spots were perceptible, without any other change in the eye. In the second case, a female aged thirty-four years, the same dark violet coloured spots around the cornea. These had existed from early childhood, but besides these there was present at the entrance of the optic nerve, on the surface of the retina, a new growth which concealed the papilla optica. This growth occupied the fovea centralis. The third case, that of a female aged fifty-six years, was complicated by an intra-ocular tumour; the iris was dark, the conjunctiva and sclerotic membranes were the seat of melanosis. The eye-ball was removed, and exhibited a sarcoma from the retina, which was so pigmented that its structure could not be recognised. From the base of the tumour black lines stretched out into the sclerotic coat. Congenital pigmentary discoloration of the skin is known to become melanosis of that structure later in life, as seen in the preceding cases of lesions of the eye, which also evinced the tendency to new growths in later periods of life.

1522. *Deutschmann on Blindness from Direct Sunlight.*—R. Deutschmann, in *Gräfe's Archiv*, Band. xxviii. (*Centraltbl. für die Med. Wiss.*, April 28), says, that in four cases, darkness of the centre of the field of vision was produced by a sudden glare of sunlight, the effect gradually diminishing, but never being wholly lost. In all these cases the ophthalmoscope discovered a slight enlargement and alteration in shape of the fovea of the macula lactea, with accumulation of retinal pigment at the site of the fovea and adjacent structure. The affection consisted in a lowering of the acuteness of vision, with a small central spot of positive darkness. The nature of the changes was ascertained by experiments upon animals. Microscopical examination of the eyes of animals recently blinded, made it manifest that the albuminous elements of the retina had become coagulated. At the darkened spot a substance was found in the retina consisting of shining drops, here and there running together into larger groups. In some, the retina had been converted into a more or less structureless mass. Around the central dark spot was a mass of fine and coarse granules. No regeneration of the destroyed retina took place; its place was taken by proliferation of pigment-cells and white blood-corpuscles. The adjacent choroid was marked by widely distended blood-vessels, with small extravasations. From these experiments it was inferred that in man, if the blindness consist in a minimum of coagulation of the retina, it may be gradually repaired, and that hyperæmia of the choroid may contribute towards the reparative changes occurring in the neighbourhood of the lesion.

W. B. KESTEVEN, M.D.

1523. *Sakovitch on Cases of High Visual Acuity.*—Dr. D. Sakovitch, senior surgeon of the 14th Malorossiyski Dragoon Regiment, reports (*L'oenno-Mediz. Zhurnal*, Feb. 1883, and *Vratch*, 1883, No. 1) seventeen cases of visual acuity = $\frac{60}{20}$ —i.e. $V=3$; three cases of $V=\frac{70}{20}=3\frac{1}{2}$; and two cases of $V=\frac{80}{20}=4$. Up to the date the highest visual acuity known in the literature was $V=3$. (See Dr. Talko's case in the *Kronika Lekarska*, Dec. 20, 1879.)

1524. *Szokalski on a Rare Case of Symblypharon.*—Dr. Szokalski describes (*Medycyna*, 1882, No. 9) a rare case of symblypharon of traumatic origin. A peasant, aged 30, presented what seemed to be ptosis of the right superior eyelid. However, on

attempting to lift the latter, there was found a bluish membrane, about three-fourths of an inch in width, binding the posterior edge of the upper lid to the lower part of the conjunctiva of the eyeball. The cornea was completely covered by the membrane, but there was no adhesion, as a probe passed quite freely between them. A stroke of scissors restored the patient's sight.

V. IDELSON, M.D.

1525. *Prevention of Ophthalmia Neonatorum.*—In the clinic of Prof. Braun in Vienna (*Wien. Med. Blätter*, Aug. 2), a modification of Credé's treatment for ophthalmia neonatorum has been in use since March 1881. Immediately after birth, before the eyes have opened, if possible, they and the surrounding parts are washed carefully with pure water and antiseptic cotton-wool, and then one or two drops of a 2 per cent. solution of argentic nitrate is dropped into each conjunctival sac. The percentage of cases of ophthalmia has fallen from 5.14 to 1.60, and the number still existing in other clinics of the same hospital shows that the treatment must have the credit of the decrease.

ALICE KER, M.D.

1526. *Ulrich on Typical Retinitis Pigmentosa with Congenital Anomalies of the Vitreous Body.*—Dr. R. Ulrich has described several such cases; two are given in the *Klin. Monatsbl. für Augenheilk.*, April 1883. Case 1. The patient was a boy, aged 12. In the vitreous body of each eye were several exceedingly long, thread-like opacities, which, on movement of the globe, swayed about irregularly and traversed the vitreous body in different directions, but came to rest near the middle of it when the eye was quiet. One of these thread-like opacities in each eye was remarkable for having at one end a peculiar body about the size of a lentil, which seemed to be built nest-like from a number of very fine threads twisted together. From the similarity of the appearance on the two sides and the peculiarity of the opacities, Dr. Ulrich thinks that they were persistent remains of embryonic hyaloid vessels. Case 2. In the vitreous body of each eye of a man aged 32, near the papilla, was a dark opaque body, about the size and shape of a lentil, with exceedingly fine short fibrils proceeding from its border. These processes could not be traced far, on account of their extreme fineness. The author thinks it is probably a calcareous concretion in connection with the hyaloid canal.

1527. *Unterharnscheid on the Treatment of Trachoma of the Conjunctiva.*—Dr. Unterharnscheid (*Klin. Monatsbl. für Augenheilk.*, February 1883) speaks of the unsatisfactory results sometimes obtained in cases of trachoma from the usual treatment. There has constantly been an effort to get better applications for the affected conjunctiva. On account of the theory that trachoma depended for its origin on specific bacteria, an antiseptic treatment was introduced (corrosive sublimate and iodoform). Nitrate of silver, however, besides being antiseptic and astringent, has a special chemical affinity for albumen, and thus prevents the proliferation of the cells. It is especially useful in those cases where the characteristic sago-grain granulations are present in the conjunctiva. Sulphate of copper is also useful as a good astringent, but it has not the chemical power of the last. The acetate of lead has more of the chemical action of the nitrate of silver, as is seen in its action on the cells of malignant tumours. Sulphate of zinc only acts as a good astringent on the vessels. Recently, operative

treatment has come into vogue in this affection in the form of scraping off or excision of the new formation. Cicatrices do not give such trouble after this rough treatment, as might be expected. In stubborn cases, where all ordinary means fail, the author has recourse to galvano-caustic treatment of the papillary granulations. The application is easy; the pain is momentary and not very severe. Between times, nitrate of silver, &c., can be used with advantage. The shrinking and cicatrization are trifling. He has only used it for the conjunctiva of the upper lid, never for the oculo-palpebral fold. He prefers the galvano-cautery to the ordinary moxa, as he can first lay the cool wire or plate on the part to be cauterised before closing the circuit.

1528. *Schadow on the Eyes of the School Children in Borkum.*—Borkum is a small island off the coast of East Friesland. Its population, almost entirely seafaring, Schadow (*Zehender's Klin. Monatsbl.*, 1883, p. 150) considers fairly representative of the German race. He examined altogether 146 children, from 6 to 14 years of age (a few were slightly under 6), in reference to the refraction and visual acuteness at different ages, and the relation of the visual acuteness to the refraction. There was only 1 myope (5.6 D). Of the others, about one-seventh were emmetropic; the great majority had slight hypermetropia, a few had more than 3 D. The average visual acuteness in children is considerably more than $\frac{20}{30}$ (Snellen). In these cases Schadow found—

1. Vision in both eyes = $\frac{20}{30}$ in 91.8 per cent.
2. Vision of one eye more than 1 in 3.4 per cent.
3. Vision about 1 on one or both sides in 1.4 per cent.
4. Vision less than 1 on both sides, but improved by glasses, in 2 per cent.
5. Vision unimproved by glasses in 1.4 per cent.

The cause of defective vision was generally an error of refraction; in two cases there was probably a central congenital defect; in two there were central corneal opacities. There was less hypermetropia as years advanced. According to Erismann, the eye that remains hypermetropic until the sixteenth year seldom becomes myopic afterwards, and the normal increase in length of the globe occurs chiefly between the ages of 13 and 15. It may be interesting to give the results of different authorities in regard to the percentage of hypermetropia and myopia in children and young adults:—

Cohn.—240 school-children from 6 to 13 (under atropine) 100 per cent. hypermetropic.

Emmert.—Elementary school; 1 myopic, 98 per cent. hypermetropic.

Koppe.—Kindergarten school; none myopic, 98.4 per cent. hypermetropic.

Korpe.—Public school; 2.4 per cent. myopic.

Callon.—Negro school, N. Y.; none myopic, 90.6 per cent. hypermetropic, and 9.4 per cent. emmetropic.

Hansen.—808 children; 2.8 per cent. myopic, 94.4 per cent. hypermetropic, and 1.6 per cent. emmetropic.

Hansen shows clearly by his statistics that hypermetropia diminishes as age advances:—

Thus in 10th year average H = 1.75 D.

„ 11th „ „ „ 1.50 D.

„ 12th „ „ „ 1 D.

„ 13th „ „ „ 1 D.

„ 14th „ „ „ 0.75 D.

1529. *Schmidt-Rimpler on the Etiology of the Development of Cataract in the Middle-aged.*—The relative frequency of cataract in young persons suffering from some form of mental disease has already been observed. The author of this paper

(*Klin. Monatsbl. für Augenheilk.*, March 1883) draws attention to what he believes to be an etiological connection between cataract and convulsions. In twenty-seven patients, in whom cataract had formed between the ages of 16 and 48, there were four epileptics, and two women with frequent convulsions, perhaps hysterical; one of the latter, according to her own statement, lost consciousness during the seizure. A third female stated that 'she was very nervous.' Thus in twenty-seven cataract patients of middle age, in whom the generally recognised causes (injury, diabetes, &c.) were absent, he found six suffering from convulsions, or about 22 per cent. Of the four epileptics, two were men aged respectively 37 and 42, and two women aged 33 and 36. The two women who had hysterical epileptiform convulsions were 40 and 47 years old. In all, the cataract was bilateral. There were altogether eighteen women and nine men in the series. From the small number of his observations, he does nothing to establish a hard and fast causal relation between the occurrence of fits and the formation of cataract, although, he argues, there is a close analogy between this relation and the development of lamellar cataract in children who suffer from teething fits.

R. MARCUS GUNN.

PATHOLOGY.

RECENT PAPERS.

1530. CORNIL AND BABÈS.—The Relation of Lupus to Tubercle. (*Le Progrès Méd.*, No. 33, 1883.)

1531. BABÈS AND CORNIL.—On Tuberculous Lesions of the Skin. (*Le Progrès Méd.*, No. 33, 1883.)

1532. COMBY.—Infective Pleurisy. (*Le Progrès Méd.*, No. 33, 1883.)

1533. EICHLER AND FINKLER.—The Tubercle-Bacillus. (*Centralblatt für Klin. Med.*, April 14.)

1534. WEICHELBAUM.—Experimental Researches on Inhalation-Tuberculosis. (*Med. Jahrbücher*, 1883, Heft v.)

1535. CORNIL.—A Case of Tuberculosis of the Genito-Urinary Tract. (*Le Progrès Méd.*, No. 33, 1883.)

1536. LINDMANN.—Tuberculosis from Contagion. (*Berliner Klin. Wochenschr.*, July 25.)

1537. BRAUN.—The Origin of Bothriocephalus Latus. (*Virchow's Archiv.*, May.)

1538. CORNIL.—On Rhinoscleroma. (*Le Progrès Méd.*, No. 30, 1883.)

1539. CHARCOT AND FÉRÉ.—Osseous and Articular Affections of the Foot in Tabes. (*Le Progrès Méd.*, No. 31, 1883.)

1540. GREENISH.—A Case of Primary Sarcoma of the Pleura. (*Journal of Anat. and Phys.*, April 1883.)

1541. HENROT.—On the Anatomical Lesions and Nature of Myxedema. (*Le Progrès Méd.*, No. 37, 1883.)

1542. GUTTMANN.—Bacilli in Tuberculous Ulcers of the Palate. (*Deutsche Med. Wochenschr.*, May 23.)

1543. KÜSSNER.—Inoculation of Tubercle. (*Deutsche Med. Wochenschr.*, Sept. 5.)

1544. NAUWERCK.—Recovery from Tuberculosis. (*Deutsche Med. Wochenschr.*, June 6.)

1545. ISRAEL.—Inoculation of Actinomycosis. (*Deutsche Med. Wochenschr.*, June 20.)

1546. KÜMMELE.—Progressive Myositis Ossificans. (*Deutsche Med. Wochenschr.*, June 6.)

1547. MOSLER.—Intestinal Tuberculosis from Swallowing Sputa. (*Deutsche Med. Wochenschr.*, May 9.)

1548. VON KOGERER.—Case of Aortic Aneurysm bursting into a Bronchus. (*Wiener Med. Blätter*, June 28.)

1549. ZEMBLINOFF, V.—A Contribution to the Study of the Pathology of Bacterial Ascending Nephritis. (*St. Petersburg Inaug. Dissertation*, 1883, p. 94.)

1550. BURTEFF, T. T.—On a Case of Bacterial Nephritis and Keratitis. (*Pratch*, 1883, No. 18, p. 282.)

1551. ECKERT, N. T.—A Contribution to the Study of Pathology of the Blood in Glanders. (*St. Petersburg Inaug. Dissertation*, 1883, p. 77; and *Arkhiv. Veterinarnykh Nauk*, 1883, Vol. i., p. 1, and Vol. ii., p. 87.)

1552. PROTOPOFF, N.—On Cerebral Changes in Uremia. (*Pratch*, 1882, No. 26, p. 424.)

1553. ALBRECHT, R. K.—Two Cases of Echinococcus Multilocularis of the Liver. (*Pratch*, 1882, No. 26, p. 419; and No. 27, p. 446.)

1554. BAUMGARTEN.—The Method of Tubercular Infection. (*Zeitschr. für die Klin. Med.*, Band vi.; and *Centrbl. für die Med. Wiss.*, Aug. 4.)

1555. ZIEHL.—The Presence of Micrococci in Pneumonic Sputum. (*Centralblatt für die Med. Wiss.*, June 23.)

1556. MATRAY.—Pneumonic Cocci. (*Wiener Med. Presse*, and *Centrbl. für die Med. Wiss.*, Aug. 25.)

1557. WORMANN.—The Diastatic Fermentation of Bacteria. (*Zeitschr. für Physiol. Chemie*, Band vi., and *Centrbl. für die Med. Wiss.*, March 3.)

1558. BOLLINGER.—Bacilli from the Udder of a Tuberculous Cow. (*Centrbl. für die Med. Wiss.*, Aug. 18.)

1559. DANISCH.—The Transmission of Leprosy to Animals. (*Virchow's Archiv*, Band xcii., and *Centrbl. für die Med. Wiss.*, July 21.)

1560. USKOW.—The Pathology of Cardiac Nerves. (*Virchow's Archiv*, Band xcii., and *Centrbl. für die Med. Wiss.*, July 14.)

1561. MOSLER.—Zooparasitic Disease of the Heart. (*Centrbl. für die Med. Wiss.*, Sept. 8.)

1562. DE VINCENTIS.—On Xanthelasma. (*Atti della Assoc. Ottalm. Ital.*, and *Annali Univ. di Med.*, June 1883.)

1563. MARAGLIANO, PROF. E.—On the Pathogenesis of Typhoid Fever. (*Annali Univ. di Med.*, May 1883, and *Centrbl. für die Med. Wiss.*, p. 125.)

1564. LUSSANA, F.—On the Quantitative and Qualitative Secretion of the Bile in the Infanition following Division of the Vagi Nerves. (*Gazz. Med. Ital. Prov. Venet.*, July 21, 1883.)

1565. TCHERNOGUBOFF.—A Case of Absence of the Uterus. (*Medic. Obsv.*, April 1883.)

1566. GOODRIDGE.—Cardiac Thrombosis as occurring in Acute Disease. (*Practitioner*, June.)

1567. BRISTOWE.—Abdominal Sanguineous Cysts. (*Lancet*, May 1883, p. 763.)

1568. SMITH.—The Presence of Bacillus Tuberculosis in an Abscess near the Anus. (*Lancet*, June, p. 1108.)

1569. FIRTH.—A Peculiar Congenital Condition of the External Ear. (*Brit. Med. Jour.*, June, p. 1177.)

ART. 1530. Cornil and Babès on the Relation of Lupus to Tubercle.—Messrs. Cornil and Babès, according to a letter published by the former in the *Progress Méd.*, No. 33, 1883, are endeavouring to carry out a series of experiments, to test the hypothesis that lupus stands in the same relation to tuberculosis that vaccinia does to variola, and that inoculation with the former may prove protective against infection by the latter. These experiments were begun before a similar idea was expressed by M. Paul Bert at the Société de Biologie.

1531. Babès and Cornil on the Presence of Bacilli in Tubercular Lesions of the Skin.—MM. Babès and Cornil (*Le Progrès Méd.*, No. 33, 1883) showed in a former paper that bacilli are not present constantly in otherwise quite characteristic tubercular lesions of the skin, but relate three cases: 1, perineal ulcer in a phthisical man; 2, ulceration of the lower lip in a phthisical woman; and 3, tuberculosis of the vagina

in a tubercular subject. In all of these, bacilli were found in the tissues of the local lesion.

1532. Comby on Infective Pleurisy.—Under the title of infective pleurisy, Dr. Comby publishes an article (*Le Progrès Méd.*, No. 33, 1883), in which he refers to the rapidly fatal cases of pleurisy related by Fraentzel (Ziemssen's *Handb. der Spec. Path.*, Band iv., 2, 1875; two cases of Professor Bouchard's, in which bacteria were found in the exudation and in the blood (Laussead, *De la Pleurisie Infectieuse*; Thèse de Paris, 1881); the observation of M. Quinquand when microphytes were found in the exudation and the urine (Goumy, Thèse de Paris, 1881; and finally, two cases under the care of M. Hallopeau of acute empyema (Bonyer, Thèse de Paris, 1883).

1533. Eichler and Finkler on the Tubercle-Bacillus.—Eichler and Finkler (*Centrbl. für Klin. Med.*, April 14, 1883), assert that it is a mistake to believe or to suppose that there are no bacilli other than those called tubercular, which stain blue, and cannot be decolorised by washing in nitric acid. They teach that even nuclei, if not exposed to the agency of nitric acid for too long a period, may have the blue colour restored by washing in distilled water. Likewise, there are bacilli, not tubercular, which may be similarly treated with nitric acid without the permanent loss of their blue tint. The point seems really to be that the tubercle-bacilli are much more resistant to the treatment employed than other forms of bacteria, but are not absolutely unchangeable by it. The prolonged influence of nitric acid may even so fully decolorise them that no bathing in pure water will restore the blue colour. The matter would seem, so far, to be entirely one of degree. But Messrs. Finkler and Eichler go further: with regard to the colourisation of the 'back-ground' (bismark-brown was employed), they say that the assertion that the tubercle-bacilli fail to take up this second colour is only relatively accurate. It is then, on the possession of these relative properties that the diagnosis of tuberculosis must depend, if we are to trust to the simple staining method as distinguished from cultivation and inoculation experiments. Put in another way, we may say that those structures which are soonest decolorised by nitric acid are the more readily susceptible to the coloration by a second staining fluid; and conversely, the most hardy are least susceptible. To this class belong the tubercle-bacilli.

1534. Weichselbaum on Experimental Researches on Inhalation-Tuberculosis.—Weichselbaum (*Medic. Jahrbücher*, 1883, Heft II.) has repeated the experiments of Tappeiner and Bertheau on the production of tuberculosis in dogs by making them inhale an atmosphere charged with pulverised tubercular sputa distributed by a spray-producer. He arrives at the following conclusions. 1. The inhalation of tubercular sputum causes in dogs constantly a true miliary tuberculosis of the lungs, and frequently of other organs also (bronchial glands, kidneys, &c.); but this appears to have no progressive character. 2. The inhalation of other substances—that is, non-tubercular substances—causes only conditionally nodules in the lungs, which, indeed, agree externally with tubercles, but cannot be identified with them. In their application to human pathology, he admits that the conditions are dissimilar, but he suggests that they indicate the importance of isolating consumptive patients and disinfecting their sputa. It is noteworthy that in the nodules of tubercle produced by

these means the tubercle-bacilli were fully developed, and there were anatomical appearances of retrogression of the growth. It is at least possible that these appearances illustrate the probable truth that, however strong the dose of poison, its reception and propagation are dependent upon the predisposition of the organism acted upon.

1535. *Cornil on a Case of Tuberculosis of the Genito-Urinary Tract*.—M. Cornil (*Le Progrès Méd.*, No. 33, 1883) relates the case of a young man who five years previously had an attack of bronchopneumonia, followed by pleuritic effusion, which passed off without leaving any physical evidence of permanent mischief, though in winter he was subject to bronchitis. After sexual intercourse, this young man was taken with severe cystitis, and a fungous ragged ulcerated surface could be detected with the sound. On examining the urinary sediment by Ehrlich's method, numerous bacilli tuberculosis were found.

1536. *Lindmann on Tuberculosis from Contagion*. Lindmann (*Berliner Klin. Wochensh.*, July 25, 1883) relates two cases where tubercular ulceration followed by constitutional symptoms followed the rite of infantile circumcision. The operator was the subject of tuberculosis, and died shortly after operating in these cases. The operation was performed in the usual manner, the operator taking a mouthful of wine and sucking the parts to arrest hæmorrhage. In one case there was a family history of phthisis, and the child ultimately died of acute pulmonary phthisis. The other, after suffering from enlarged glands and osteitis of the wrist-joint, recovered and remained well.

1537. *Braun on the Origin of Bothriocephalus Latus*.—Braun (*Virchow's Archiv*, May 1883, p. 364), having discovered that the muscles of the pike caught in certain lakes near Dorpat contained numerous scolices, has been able to prove by direct experiment on three students that the ingestion of these fish in an uncooked condition is followed by the development of bothriocephalus latus in the intestine.

1538. *Cornil on Rhinoscleroma*.—M. Cornil has recently read a paper to the Société Anatomique of Paris on this subject (*Le Progrès Méd.*, No. 30, 1882). It resembles lupus, but differs from it histologically. It has been worked at by several German dermatologists, but Pellizari's monograph contains a full bibliography (*Il Rhinoscleroma*. Celso Pellizari. Firenze, le Monnier, 1883). A section of a small nodule removed by M. Verneuil showed very little change in the epidermis or glands. The papillæ were well developed, and richly vascular. The vessels of the corium were thickened and infiltrated with small round cells, while between the vessels were large round cells lying in a reticulum. These cells were filled with some substance, which in many cases displaced the nucleus, and which may exude from the cell in which it has formed. This substance appears to be simply hyaline. He could find no bacilli, and refers to the recent paper of Babès, which showed that granules of this hyaline substance stained with aniline and produced appearances suggestive of bacilli.

1539. *Charcot and Féré on Osseous and Articular Affections of the Foot in Tabes*.—Charcot and Féré (*Le Progrès Méd.*, No. 31, 1883) describe three cases of a peculiar deformity of the foot in tabes, a specimen of which was shown at the International

Medical Congress by Mr. Herbert W. Page (*Trans. of the International Med. Congress*, 1881, Vol. i., p. 124). This deformity consists in thickening of the bones of the tarsus and partial dislocation of the inner tarso-metatarsal articulations, so as to cause a well marked angular projection on the inner side of the foot. In a necropsy on a similar case, made by Dr. Capitan, he found erosion, wasting, and vegetations on the free borders of the articular surfaces of the astragalus and calcaneum; the astragalus was broken at the level of its neck; the scaphoid and cuboid were wasted, deformed, and hardly recognisable. There were numerous small detached fragments, amongst which it was hard to recognise the third cuneiform bone. The first cuneiform was enlarged, thickened from above downwards; as was also the posterior part of the first metatarsal, to which it was soldered. The second cuneiform, deformed posteriorly, was also united to the second metatarsal. All the bones of the tarsus and metatarsus were spongy, friable, and unusually light.

1540. *Greenish on Primary Sarcoma of the Pleura*.—Mr. R. W. Greenish (*Four. of Anat. and Phys.*, April 1883) records a case of primary sarcoma of the pleura in a woman, aged 54. The left side of the chest was full of fluid, and the pleura was covered more or less thickly with nodules, some sessile, some pedunculated, all pigmented on their surfaces, hard, and cartilaginous to the feel, and semi-translucent on section. Under the microscope they presented the appearance of alveolar sarcoma. He gives the following bibliography of the subject:—Lebert (*Traité d'Anatomie Path.*), three cases; Vidal (*Bulletin de la Société Anatomique*, Tome xxvii.); Lépine (*Ibid.*, Tome xiv.); Böhme (*Virchow's Archiv*, Bd. lxxxi.); Schulz (*Archiv der Heilkunde*, Bd. xv.); Birch-Hirschfeld (*Lehrbuch der Path. Anatom.*); Eppinger (*Schmidt's Jahrbücher*, 1880); and Unverricht (*Zeitschrift für Klinische Medizin*, 1882), one case each. In all, the growth formed a thick layer of cartilaginous hardness one to several centimètres thick. In two cases the right side was affected, in six the left, and in three both sides. In six cases it is stated to have been more advanced in the costal pleura than elsewhere. Lépine's case was aged 10, all the others were over 35. Birch-Hirschfeld, Böhme, Eppinger, and Schultz describe the growth as starting from the endothelium of the lymphatics, but Greenish finds no evidence of this, and believes the cells to be derived from the ordinary connective tissue cells.

1541. *Henrot on Myxœdema*.—Henrot (*Des lésions anatomiques et de la nature du Myxœdème*.—Reims, 1882; reviewed in *Progrès Méd.*, No. 37, 1883) has examined with care the lesions of the nervous system in myxœdema, and draws especial attention to the hypertrophy of the trunks of the nerves, the pneumogastric, glossopharyngeal, brachial plexus, especially the ganglia and cord of the great sympathetic, and to the enlargement of the pituitary body and pineal gland. On these facts he founds a theory that the disease consists in a return to the embryonic state of the subcutaneous, submucous, and interstitial connective tissue, and the formation of mucin, under the influence of the enlarged pituitary and pineal glands which preside over this function.

ROBERT SAUNDY, M.D.

1542. *Guttman on Bacilli in Tuberculous Ulcers of the Palate*.—In the 'Verein für innere Medicin' in Berlin on April 30 (*Deutsche Med. Wochensh.*, May 23) Dr. Guttman gave a demonstration on the

presence of bacilli in tuberculous ulcers of the soft palate. They are specially interesting as being very rare manifestations of tuberculous disease; he had found them in only 1 per cent. of the cases treated in his hospital clinic.

1543. *Küssner on Inoculation of Tubercle*.—Dr. Küssner, of Halle, communicates to the *Deutsche Med. Wochens.*, of Sept. 5 the result of some inoculation experiments with tuberculous sputa, undertaken by himself and Herr Panecki, chiefly on rabbits, but once or twice on dogs. They found that, without exception, the injection of tuberculous sputa into the trachea produced tubercular changes in the lung, while non-tuberculous material never did. The tuberculous nature of the sputa was in all cases determined by the presence of bacilli, and the nature of the induced infection in the same way. Two inoculations were very interesting. In the one case, the sputa were taken from a patient believed to be simply catarrhal, and only after the appearance of tuberculosis in the animal was the previous history of hæmoptysis and other phthisical symptoms obtained from the physician who had been in attendance. The other case was the converse of this. The sputa had been taken from a patient supposed to be phthisical, but the negative result of the inoculation caused inquiry to be made, when it was found that he had been treated for years for chronic catarrh with bronchiectasis. Subsequent examination of the sputa for bacilli revealed the true state of the patients. In experimenting with disinfectants, the investigators found that only when these were employed in a solution of from 1:5 to 2 per cent. was the infection prevented, although weaker solutions lessened the effects in direct proportion to their strength.

1544. *Nauwerck on Recovery from Tuberculosis*.—Dr. Nauwerck, of Tübingen, reports to the *Deutsche Med. Wochens.*, of June 6 a case of cured tuberculosis, which occurred in the practice of Dr. Hufschmid, of Schlesien. The patient was 46 years of age, and died last April of carcinoma of the pylorus, after suffering for about a year. At the necropsy the apices of both lungs were found adherent to the costal pleura, and the pulmonary parenchyma was shrunken and toughened, with scattered bronchiectases and patches of caseous and calcified tissue. A few typical bacilli were found in a small cavity filled with caseous material, and surrounded by thick walls. In 1877 the patient had begun to cough, lost flesh, and looked ailing, which symptoms lasted about a year, and disappeared without treatment, and without hæmoptysis or any symptom necessitating confinement to bed. There was no history of tubercle in previous generations, but four brothers of the patient had died of pulmonary tuberculosis, and the affection had also appeared in the next generation.

1545. *Israel on Inoculation of Actinomycosis*.—At the meeting of the Berlin Medical Society on June 13 (*Deutsche Med. Wochens.*, June 20) Herr Israel showed microscopic preparations from the first successful inoculation of a rabbit with actinomycosis. The inoculation had been practised into the peritoneal cavity in the end of March, and no symptoms had followed; but when the animal was killed, the day before the demonstration, a few tumours of the size of cherries containing the characteristic fungus were found adherent to the peritoneum.

1546. *Kimmel on Progressive Myositis Ossificans*. At the German Surgical Congress in Berlin on

April 5 (*Deutsche Med. Wochens.*, June 6) Herr Kimmel, of Hamburg, showed an interesting case of progressive myositis ossificans. A deformity of the spinal column had been noticed fourteen days after birth, and the various points of ossification in the muscles had gradually increased until only the leg and arm were left unaffected. A tough fibrous cord existed in the substance of the rectus abdominis, and the psoas was felt, under chloroform, to be affected. The floor of the mouth had become a callous mass, and no distinction could be felt between the hyoid bone and the pomum Adami. [The age of the patient is not given.—*Rep.*]

1547. *Mosler on Intestinal Tuberculosis from Swallowing Sputa*.—Dr. Mosler, of Greifswald, communicates a paper to the *Deutsche Med. Wochens.*, of May 9, on the infection of the intestinal mucous membrane from the swallowing of tuberculous sputa. In one case, which he treated in hospital, the patient, who was rather stupid, could not be persuaded into ejecting the sputum, but invariably swallowed it, in quantities which other symptoms showed to have been very great. Ten days after his first attack of cough with expectoration, diarrhoea and severe colic came on, which was relieved by opiates and other appropriate remedies, but which, nevertheless, went on, until death occurred in eight days. Distinct signs of tubercle were found in the lungs, but nowhere else in their immediate neighbourhood, and in no other part of the body except abundantly in the intestines, especially the jejunum. Mosler attributes the presence of tubercle in the intestines in all cases more to the swallowing of the sputa than to a general infection. He has not as yet succeeded in producing tuberculosis of the intestines in animals by feeding them on tuberculous sputa and pieces of solid tubercle, but in one case it caused considerable inflammation of the stomach and small intestine. A tonic prophylactic treatment, in the direction of the bowels, is indicated, as tubercle chooses the weakest organ for its development. The case cited had gone through an attack of typhoid fever some little time before, which might have predisposed to the infection.

1548. *Von Kogerer on a Case of Aortic Aneurism bursting into a Bronchus*.—In the *Wiener Med. Blätter* for June 28, Dr. von Kogerer describes a case of contraction of the lung which occurred in the clinic of Professor Nothnagel, in which a pleuritis which began in Dec. 1882 was followed so early as Feb. 1883 by well-marked symptoms of complete retraction of the lung. Death occurred in consequence of a violent hæmoptysis, which was found on *post mortem* examination to have resulted from the bursting of an aneurism of the descending aorta, which had encroached on the left bronchus. The bronchial wall next the aneurism was eaten away, and even the opposite wall had been denuded of its epithelium through pressure, leaving the cartilage bare. The rapidity of the pulmonary contraction was probably due to the atelectasis caused by the pressure on the bronchus, and, as that pressure was exerted by the aneurism, there was an indirect relation between the aneurism and the contraction. The aneurism was in such a situation that it could not be diagnosed during life. ALICE KER, M.D.

1549. *Zemblinoff on Bacterial Ascending Nephritis*.—Following a suggestion made by Professor N. P. Ivanovsky, Dr. V. Zemblinoff (*St. Petersburg Inaug. Dissertation*, 1883) has undertaken numerous experiments on dogs to find out—1. the ways

through which the micro-organisms penetrate into the kidney in 'nephritis ascendens bacterica' (that is, in pyelonephritis of Klebs); and 2, the part played by the parasites in the development of the renal disease under consideration. The author's experiments consisted in the production of pyelonephritis by injecting various foul liquids (urine, flesh infusion, &c.), or Cohn's fluid (containing bacteria) into the animals' bladders. In one series of his experiments, the author, having made an injection, tied up the animal's prepuce after Cohnheim's method, in order to produce retention of urine. In another group, the prepuce was left untied, but an often repeated catheterisation was made, to imitate lithotriptic and similar surgical manipulations, after which pyelonephritis sometimes shows itself. In every case some fine colouring powder (carmine or insoluble Berlin blue) was suspended in the injected fluid, for the better tracing any locomotion of the latter. Dr. Zemblinoff sums up the results of his interesting researches as follows. 1. The occurrence of a direct return of urine from the bladder towards the kidney, under normal anatomical relations of the uropoietic apparatus, is experimentally proved beyond any doubt. 2. This return is caused by a series of combined movements of the bladder and ureters. 3. Its occurrence may easily explain the co-existence of integrity of the ureters, and of a characteristic lesion of the kidneys, in cases of pyelonephritis of vesical origin. 4. Pyelonephritis, or, better, bacterial ascending nephritis, occurs more often than is generally thought. 5. It causes deep destruction of the renal tissues only in comparatively rare cases; far more often, it leads to the formation of cicatricial tissue. 6. The chief agent producing an inflammatory process in cases of bacterial ascending nephritis are micro-organisms, but not products of decomposition of urine.

1550. *Burtzeff on a Case of Bacterial Nephritis and Keratitis*.—At a recent meeting of the Medical Society of St. Petersburg, Professor T. T. Burtzeff (*Wratch*, No. 18, 1883) detailed the case of a peasant woman, aged 25, in the eighth month of pregnancy, who had been admitted into the hospital on account of relapsing fever. Nine days after her admission, she was delivered of a dead fetus. On the tenth day after delivery she left the hospital seemingly in fair health, but on the twenty-first she was re-admitted with high fever and enlargement of the spleen. On the twenty-fifth day there appeared delirium; on the twenty-ninth, purulent infiltration of the cornea; on the thirty-third, their perforation; then vomiting and collapse followed; and on the thirty-fourth day the patient died. At the *post mortem* examination there were found, beside abscesses and gangrenous foci in the lungs, an acute parenchymatous and interstitial inflammation of the kidneys with formation of minute abscesses, and accumulation of pus under the renal capsule. Microscopic examination showed that granularity of the swollen epithelial cells of the straight tubuli depended on the presence of micro-organisms. The interstitial tissue of the kidneys was also infiltrated with sporadic and colonial bacteria. In some of the dilated renal vessels thrombi, consisting entirely of micrococci, were present. Similar accumulations of the fungi were detected in both of the corneæ. Prof. Burtzeff does not doubt that the case above is an instance of 'bacterial nephritis and keratitis.' He does not attempt, however, to build up any definite theory of the case. [Schistomycetes in hypo-

pyon-keratitis were also described by Dr. Leber in the *Arch. für Ophthalm.*, Band xxv., Heft 2.—*Rep.*]

1551. *Eckert on the Pathology of the Blood in Glanders*.—This is a very carefully written work, embodying the results of an able study of the literature, and of experiments carried out under extremely dangerous conditions. Dr. N. T. Eckert (*St. Petersburg Inaugural Dissertation*, 1883; and *Archiv Veterinarnykh Nauk*, 1883, Vols. i. and iii.), who worked under the guidance of Prof. A. A. Raevsky, made thirty analyses of the blood taken from twelve glandered horses. The general conclusions drawn by the author are these. 1. The amount of fibrin in the glanderous process is considerably increased (more than double the normal). 2. The quantity of hæmoglobine is slightly decreased. 3. The proportions of water and solids remain unchanged. 4. The amount of albuminoid matters in the blood-serum is markedly augmented.

1552. *Protopopoff on Cerebral Changes in Uremia*.—In Virchow's *Archiv*, Vol. 82, p. 40, Professor L. V. Popoff described hyaline scales which he has found in the cerebral vessels and perivascular spaces in uræmia artificially produced in dogs and rabbits. He believed that these scales played an important part in the causation of uræmic phenomena. According to his exposition, the hyaloid bodies which are derived from the red blood-corpuscles under the influence of abnormally accumulated urea form thrombi within vessels, and lead in this way to disturbance of the circulation; besides, they produce pressure on the brain-substance. To test the truth of Professor Popoff's assertions, Dr. N. Protopopoff (*Wratch*, 1882, No. 26) undertook, in Professor J. N. Obolensky's laboratory, a series of experiments on dogs, geese, and hens, in which he produced uræmia by tying the ureters, or by extirpation of the kidneys. He arrived at the following results. 1. Cerebral symptoms in uræmia cannot be explained by the presence of Popoff's hyaloid masses, for the latter do not present any constant phenomena. 2. The brains of uræmic birds never contain any hyaloid flakes. 3. Hyaloid scales are formed from red—and possibly white also—blood-corpuscles. 4. It is doubtful whether urea alone may produce the transformation of blood-corpuscles into flakes; it is even possible that urea does not take any part in this process. No flakes were found by the author in the brains of patients who died from chronic uræmia. [The first of Dr. Protopopoff's conclusions is in strict harmony with Ivanoff's views concerning hyaloid flakes in dogs. See the LONDON MEDICAL RECORD, March 1883, p. 20.—*Rep.*]

1553. *Albrecht on two Cases of Echinococcus Multilocularis of the Liver*.—Up to the present time, it has been generally believed that multilocular echinococcus is met only in Southern Germany and Switzerland. Dr. R. K. Albrecht, of St. Petersburg (*Wratch*, 1882, Nos. 26 and 27), publishes two interesting cases, which positively show that this parasitic form occurs in Russia also. Both of the patients (a soldier's wife, aged 60, and a labourer, aged 69) never in their lives crossed the Russian frontier. Their disease was recognised only after death. [Dr. Albrecht's paper, dealing almost exclusively with the anatomic-pathological side of the cases, is, we think, only the second contribution to the study of the subject emanating from a Russian physician. The first was Dr. Maria Prugeansky's inaugural dissertation, written at Zürich in 1873

under Professor Biermer's guidance (*Die Multiloculäre Echinococcusgeschwulst.—Rep.*)

V. IDELSON, M.D.

1554. *Baumgarten on the Method of Tubercular Infection.*—P. Baumgarten (*Zeitschr. für die Klin. Med.*, Band vi., and *Centralbl. für die Med. Wiss.*, Aug. 4) considers as problematical the received views upon the etiology of phthisis with reference to the reception, by respiration, of the bacilli of tubercle in constitutions originally predisposed thereto. On the other hand, he holds to the possible transfer of a specific tuberculous parasite during intra-uterine life. For this allocation of the bacilli in the embryonic tissues, Baumgarten points to the lymphatic glands and the medulla of bones, in which colonies of the bacilli subsist in a kind of larval existence, until, from external influences, the vitality of the tissues is lowered. The occasions of awakening these slumbering broods into vital activity occur during childhood in scrofulous glands and diseased joints, and from inflammation and local injuries; in later periods of existence, when the tissues have ceased to proliferate, a limit is placed to the phthisical processes. After this, tubercular infection by the fungus of tubercle, either through the air or in nutrition, plays a subordinate part in the etiology of phthisis in man.

1555. *Ziehl on the Presence of Micrococci in Pneumonic Sputum.*—Dr. Franz Ziehl of Heidelberg (*Centralbl. für die Med. Wiss.*, June 23), has had the opportunity of examining micrococci in two cases of pneumonia in the practice of Professor Erb. In the first patient, a man aged 24, a shoemaker, suffering under acute pneumonia, the sputum contained large quantities of micrococci. Convalescence commenced on the fifth day. In the second case, beginning with all the usual acute symptoms, the sputum was rust-coloured, containing coagulated fibrin, and abundance of micrococci. Fever began to decline on the fifth day. In these cases, the presence of the cocci described by Friedländer was considered sufficient to prove the infectious origin of the disease.

1556. *Matray on Pneumonic Cocci.*—A characteristic micrococcus is reported by M. Matray (*Wiener Med. Presse*, 1883, and *Centralbl. für die Med. Wiss.*, Aug. 25) in seventeen cases of pneumonia, more especially in the early morning expectoration. The size of the coccus was 1 micromillimetre (= about 1.25,000th English inch), the length was double the thickness, the ends were rounded; it had a sharp outline, and was enclosed in a transparent membrane. The cocci were uniformly distributed over the field of the microscope, often in sarcinoid groups. In a case of bronchitis, these organisms were discovered after treatment with dilute acetic acid.

1557. *Wortmann on the Diastatic Fermentation of Bacteria.*—J. Wortmann, in the *Zeitschr. für Physiol. Chemie*, Band vi., S. 287 (*Centralbl. für die Med. Wiss.*, March 3) says that, if bacteria be added to a solution of chloride of ammonium through which starch powder has been diffused, the starch will gradually be dissolved. The rapidity with which this solution takes place depends upon the compactness of the starch. Wheat-starch is most quickly dissolved, then palma, curcuma, orris; potato-starch is not affected. The bacteria derive carbon from the starch, if no other source be present. In fluids containing tartaric acid, the process is slower, but, under the influence of atmospheric oxygen, it is gradually effected. In the course of the metamorphic change sugar is formed, the ferment of the bacteria thus evincing a diastatic power, but possessing no

peptic properties. If the mixture be precipitated by alcohol, the aqueous fluid is found to contain starch and sugar. The metamorphosis takes place more rapidly in weakly acid than in neutral solutions.

1558. *Bollinger on Bacilli from the Udder of a Tuberculous Cow.*—O. Bollinger (*Centralbl. für die Med. Wiss.*, Aug. 18) attributes the virulence of the secretion from a diseased mammary gland to the presence of bacteria. The milk of a tuberculous cow was injected into the tissues of a guinea-pig, which became tuberculous. Tubercle-bacilli were found in the udder of a cow ill from murrain, and in the milk of the same animal. A guinea-pig, into whose abdominal cavity these bacilli were injected, died in eleven days with tubercle in the spleen and peritoneum. W. B. KESTEVEN, M.D.

1559. *Danisch on the Transmission of Lepra to Animals.*—O. Danisch (*Virchow's Archiv*, Band xcii., and *Centralbl. für die Med. Wiss.*, July 21) describes experiments performed with the material derived from a man who had lepra, in the Sunda Islands. Injections of fluids containing the fungus—e.g. blood, serum, &c.—produced no decided result beyond a local inflammation, not attended with the production of bacilli. Positive results were obtained in one instance, by the insertion of a portion of diseased tissue into the anterior chamber of the eye of a puppy. A fine network-like appearance occurred on the edge of the iris, gradually extending over its whole surface, and attacking Descemet's membrane [posterior elastic lamina of Bowman—*Rep.*] and the anterior capsule of the lens. In each of these networks were to be seen bacilli in greater or less quantities. The richness of the fungus, in bacilli, was so great, that a multiplication to a great extent attended the insertion into the animal tissues. Signs of cerebral disturbance occurred in the two animals experimented upon, two months afterwards, in one, and in the other after five months; in the first case, there was effusion into the pia mater on the side of the affected eye; in the second, a tumour developed at the exit of the fifth, sixth, and eighth cerebral nerves. The fungus was detected in the pia mater at these last sites. In some puppies and mice, portions of diseased structure were absorbed without further consequences. Two fragments of granulations being inserted, the one into the abdominal cavity, the other under the integuments of a cat, bacilli rapidly made their appearance, and were found in the lymphatic spaces of the arteries, and in the adipose tissues. From these observations the author infers that the fungus of lepra can be communicated from man to animals, and will spread in the same manner to adjacent structures.

1560. *Uskow on the Pathology of Cardiac Nerves.*—Uskow (*Virchow's Archiv*, Band xci., and *Centralbl. für die Med. Wiss.*, July 14) has, under Recklinghausen's directions, studied the condition of the nerves of the heart in hypertrophy of that organ, occurring with emphysema, chronic nephritis, and general arterial sclerosis. He found bunch-like swellings and thickening of the myelin, with atrophy of the sheath. He describes also fatty degeneration of fibres with increase of the nuclei in Schwann's sheath, with the effects usually observed after division of nerves, regarded as forms of degeneration and regeneration. The diminution of medullary fibres, with increased proliferation of the nuclei *pari passu* with the hypertrophy of the muscular structure, have also been observed in cases of unilateral hypertrophy of the heart, both on the normal and on

the hypertrophied sides of the organ. No uniform relation between fatty degeneration of the muscles and nerves had been observed. The swellings of the medulla, and proliferation of nuclei, Uskow regards as evidence of neuritis. The degenerative condition of the cardiac nerves the author considers sufficient to account for the constitutional condition. The nerve-cells presented enlargement of the nuclei, and thickening of their capsules (?).

1561. Mosler on *Zooparasitic Disease of the Heart*.—In 1863, Dr. F. Mosler having fed a calf with the proglottida of *tenia mediocanellata*, the animal died with convulsions in twenty-one days. The muscles at large, and that of the heart, were found studded with countless spots or tubercles of the size of pins' heads, enclosing in each a cysticercus. The introduction of this tania into the human heart is attended with fatal consequences. The author has collected the literature of sixteen cases (*Centr. bl. für die Med. Wiss.*, Sept. 8). In most of these the cysticerci were found only on necropsy. In no case were they ascertained by diagnosis during life, although symptoms of thoracic disorder in some of these cases were recognised. The author has also collected twenty-nine published cases of echinococci of the heart. They were most frequently found on the right side. They appeared as if a worm were imbedded in the substance of the heart, but not protruding into its cavity. These parasites gave rise to no symptoms, although, when superficially seated, they might by perforation give rise to pleuritis or pericarditis. In eighteen cases the cyst protruded into the different cavities. In thirteen cases death had occurred suddenly by embolism, without any premonitory signs. In others, the perforation gave rise to prolonged cardiac or pulmonary disturbance. W. B. KESTEVEN, M.D.

1562. *De Vincentis on Xanthelasma*.—In this communication (*Atti della Assoc. Ottalm. Ital.*, *Annali Univ. di Med.*, June, No. 3) the author re-confirms his conception, already expressed, that this morbid form must be considered as a true neoplasia of epithelioid elements, and not as a simple hyperplasia of the connective tissue with infiltration of pigment-granules. The epithelioid cells undergo a retrogressive phase, and are refilled with a special adipose matter, which causes the characteristic colour of the neoplasia. At the meeting where the paper was read, the author showed many microscopical preparations illustrating his views.

1563. *Maragliano on the Pathogenesis of Typhoid Fever*.—Ehert and Klebs, and many others, have observed the special micro-organisms in the tissues of those who have died of abdominal typhus. Maragliano sought to find them in the blood during life. With this scope he examined the blood of the general circulation in the usual manner, and with all necessary precautions, from the end of the finger; he also examined that of the spleen, procuring it by means of a Pravaz's syringe thrust into the parenchyma, as Sciamana of Rome first practised for the examination of the blood in malarial poisoning. He observed the blood in fifteen cases. In the acme of the disease the blood contained micro-organisms, isolated and in colonies; almost all were micrococci. In the blood of the spleen only were found bacilli perfectly similar to those described by Klebs and Eberth, but few in number. In convalescence, the micro-organisms disappear from the blood of the general circulation and from that of the spleen. After large doses of quinine, few organisms are found. By

cultivation of the blood a great number of bacilli were obtained, longer than those met with during life, and identical with those described by Klebs. Dr. Maragliano maintains that the results of his researches confirm those of Klebs and Eberth, and destroy the objection that the micro-organisms found by those observers were developed only after death.

1564. *Lussana on the Quantitative and Qualitative Secretion of the Bile in the State of Inanition following Division of the Vagi Nerves*.—It is well known that the bile is secreted copiously during prolonged fasting, but attention has been more directed to its quantity rather than to its quality or composition. To determine this latter, Professor Lussana examined the bile in dogs after section of the vagi—that is, in a state of suspension of the digestive functions. After division of these nerves the animals generally die within a few days, and in these the experiments would not be so conclusive, as the bile would still be more or less influenced by the food taken before digestion was suspended. Two dogs, however, survived twenty-four and seventeen days respectively, and Professor Lussana draws his conclusion from the analysis of their bile. During the twenty-four days the first dog lived he was seen sometimes to eat, but the food was quickly vomited, the vomit never being acid. After death, the blood in the vessels was black in colour; in the heart were large firm fibrinous coagula; in the stomach was some food, neutral in reaction; the gastric mucous membrane was pale; the liver did not contain glucose; the gall-bladder was tense and full, containing twenty grammes of dark green bile. The analysis of the bile showed diminution of water and increase of the biliary salts (taurocholate and glycocholate of soda). Hence he concludes that the biliary acids represent excrementitious matters from dissimilation. The abolition of the secretion of the gastric juice is an important fact, and is the more remarkable when the increased secretion of the biliary acids is considered. This tends to confirm the opinion of Bernard as to the influence of the vagi on the secretion of the gastric juice and on gastric digestion, and more particularly as to the special dependence of the secretion of the gastric acid (and not of the pepsin) on the innervation of the vagus, according to the opinion of Inzani and the author. In both dogs, a decoction of the liver was found not to contain glucose. This accords with Bernard's and the author's opinion, that glucose must be considered either as a product of a physiological secretion of the liver, or as an expression of its state of nutrition.

G. D'ARCY ADAMS, M.D.

1565. *Tchernoguboff on a Case of Absence of the Uterus*.—A woman, aged 24, applied to the author at the Serdobsks Hospital, Russia, stating that she was barren, and that a midwife had detected an abnormal condition of the vagina. She had been married six years, and had frequently submitted to apparently complete coitus, which had always been attended with pain. She was a well-nourished subject, with fully developed breasts and labia. The clitoris was unusually small. The urethra was so much dilated, that the index-finger could readily be introduced into the bladder. The vagina formed a shallow pit. After the most careful digital examination and bimanual palpation through the bladder and rectum, no trace of a uterus could be detected. Sexual desire, menstruation, and vicarious hemorrhages were all entirely absent in this case.

ALBAN DORAN.

1566. *Goodridge on Cardiac Thrombosis as Occurring in Acute Disease.*—Dr. Goodridge, in the *Practitioner*, June 1883, records three cases of cardiac thrombosis; two of them occurred in the course of acute rheumatism, a disease characterised by an increase in the amount of fibrine in the blood. In one case, death was instantaneous; the patient had an adherent pericardium, together with endocarditis, and on *post mortem* examination it was found that a long firm coagulum of decolorised fibrin extended from the mitral orifice into the aorta. The second case occurred in a man, aged 22, who woke up suddenly from a sleep with a sense of impending death, and died in a few minutes; on examination a long, firm, decolorised fibrinous coagulum was seen occupying the cavity of the right ventricle, and extending thence into the pulmonary artery, blocking it completely. In the third case, death was comparatively slow, dyspnoea being progressive, and showing that the thrombus formed slowly before death. On examination, the right auricle was found to be occupied by an irregularly shaped, colourless, fibrinous mass, completely blocking the tricuspid orifice; a tubular prolongation of the mass extended into the superior vena cava. The cases cited are intended to show that the patients' lives were not brought to a close by cardiac weakness alone, but that there was an abnormal tendency in the blood to the formation of fibrine, and that the fibrinous coagula were formed before death.

1567. *Bristowe on Abdominal Sanguineous Cysts.* Dr. Bristowe, in the *Lancet*, May 1883, p. 763, records two cases of abdominal tumours, one of which occurred in a man aged 28, in whom the swelling reached an enormous size and reduced the patient to an almost hopeless condition. On tapping, Dr. Bristowe drew off a gallon and a half of dark reddish-brown fluid, having the characters of simply altered uncoagulated blood. Two months subsequently the tumour was retapped, but after that it did not fill again, and the patient lived many years. The second case occurred in a man aged 35, who was admitted into St. Thomas's Hospital in February 1879. There was a tumour occupying the lower part of the abdomen, but as to its origin and nature nothing could be decided; it was aspirated, and a few ounces of fluid resembling that of the previous case were drawn off. Subsequently 128 ounces of fluid were drawn off; and again, in May, 86 ounces were removed; he was able to leave the hospital for a few months and then returned to have the tumour tapped. This went on until May 1882, when he was again admitted as he was losing flesh, and on June 24 he died. At the *post mortem* examination, the tumour proved to be a round-celled sarcoma, arising from the tissues in front of the sacrum; there was a central cyst containing about a pint and a half of fluid, but no secondary deposits were discovered in the neighbouring glands or elsewhere. The two cases considered together are instructive, and the paper is well worth a careful perusal.

1568. *Smith on Presence of Bacillus Tuberculosis in an Abscess near the Anus.*—Dr. Smith (*Lancet*, June 1883, p. 1108) gives an account of a man, aged 21, who came under treatment for hæmoptysis and other signs of phthisis. Six months subsequently the patient suffered from an abscess in the neighbourhood of the anus; this was opened, and a quantity of thin curdled pus evacuated. A microscopic examination of the fluid revealed the presence of great quantities of well-marked typical tubercle-bacillus.

1569. *Firth on a Peculiar Congenital Condition of the External Ear.*—Dr. Firth, in the *Brit. Med. Jour.*, June 1883, p. 1177, records a case of a peculiar congenital malformation of the external ear in a child 7 months old. It consists of a minute orifice, situated just where the helix of the ear subsides into the general surface of the skin, and about one-eighth of an inch from the edge of the helix. The mother states that, when the child cries, it secretes a drop or two of clear fluid; but, though the orifices are symmetrical on the two sides, it is only the left opening which secretes. It is probably a gland, resembling in structure the lacrymal, and supplied by the same nerve.

RICHARD NEALE, M.D.

OTOLOGY.

RECENT PAPERS.

1570. MOOS, S. AND STEINBRÜGGE, H.—On the Combined Occurrence of Rachitic Alterations and Disturbances of Development in the Ears of a Cretin. (*Archives of Otolaryngology*, Vol. xi., No. 1.)

1571. MOOS, S. AND STEINBRÜGGE, H.—Hyperostosis and Exostosis, Ankylosis of the Head of the Hammer, Bony Occlusion of the Round Window, and Colloid Degeneration of the Auditory Nerve in the Petrous Bone of an Aged Lunatic affected with Hallucinations. (*Ibid.*)

1572. MOOS, S.—A Case of Double Labyrinthine Affection, with Staggering Gait and Permanent Abolition of Hearing after Mumps. (*Ibid.*)

1573. STEINBRÜGGE, H.—A Case of Diplacusis. (*Ibid.*)

1574. KNAPP, H.—Congenital Fibrous Closure of the Auditory Meatus: Opening Frustrated by Hematophylia. (*Ibid.*)

1575. KNAPP, H.—A Case of Transient Poisoning, from the Instillation of a few drops of Atropia into a Healthy Ear-Canal. (*Ibid.*)

1576. MOORE, W. OLIVER.—Acute Otitis Media supervening on Otitis Media Purulenta Chronica, resulting in Necrosis of Temporal, Occipital, and Parietal Bones, with Closure of Lateral Sinus and Abscess of Cerebellum. (*Ibid.*)

1577. MOOS, S.—Double Hearing during the Administration of Iodide of Potassium. (*Ibid.*)

1578. MUNSON, G. S.—A Case of Chronic Suppurative Otitis with Exostosis of the Auditory Canal: Abscess of the Brain: Death: Autopsy. (*Ibid.*)

1579. MOOS, S.—Railroad Accidents in connection with Bad Hearing of Engine-Drivers. (*Archives of Otolaryngology*, Vol. xi. No. 2.)

1580. MOOS, S. AND STEINBRÜGGE, H.—On the Formation of a New Membrane in the Drum-cavity, resulting from Hemorrhagic Pachymeningitis. (*Ibid.*)

1581. BRUNNER, G.—A Case of Complete Unilateral Deafness after Mumps: with Critical Remarks. (*Ibid.*)

1582. BURCKHARDT-MERIAN, ALBERT.—Supplement to Professor Moos and Dr. Steinbrügge's Case. (See above No. 1580, *Ibid.*)

1583. GRAF, F.—On Artificial Drum-Membranes, and especially the Cotton-Pellet. (*Ibid.*)

1584. SCHALLÉ, R. (the late).—On Aural and Nasopharyngeal Diseases, and some of their Methods of Treatment. A posthumous paper. (*Ibid.*)

1585. BRANDEIS, K. C.—Two Cases of Tinnitus Aurium caused by Disturbances in the Current of the Cervical Blood-vessels. (*Ibid.*)

1586. BRANDEIS, R. C.—Otitis Media Catarrhalis; Objective Sounds (Spasmodic Contraction of Tubal Muscles?); Nervous Origin; Hysteria. (*Ibid.*)

1587. DOUMERGUE, A.—Contribution to the Study of Auditory Affections in Bright's Disease. (*Thèse de Paris*, 1881, and *Revue Mens. de Laryngol.*, April 1881.)

1588. BARATOUX, J.—Otolaryngology, Pathology, and General Therapeutics of the Ear. (*Revue Mens. de Laryngol.*, April 1881, and following numbers.)

1589. CHAMPEAUX.—Contribution to the Study of the Symptoms, Diagnosis, and Pathogeny of Ménière's Disease. (*Thèse de Paris*, 1881, and *Revue Mens. de Laryngol.*, May 1881.)

1590. BONILLAUD.—The Derangements of Progression, Standing, and Equilibration occurring in Experiments on the Semicircular Canal, or in Diseases of these Canals, are not the Effect of these, but result from the Influence which they exert on the Cerebellum. (*Acad. des Sciences*, and *Revue Mens. de Laryngol.*, June 1881.)

1591. CINISELLI.—Calcareous Degeneration of the Annulus Tympanicus. (*Revue Médical*, May 14, 1881; and *Revue Mens. de Laryngol.*, June 1881.)

1592. GELLÉ.—The Eustachian Tube in Otorrhoea. (*Société de Biologie*, May 14, 1881; and *Revue Mens. de Laryngol.*, June 1881.)

1593. MIOT, C.—Nervous Deafness Due to Congestion: Employment of Electricity: Cure. (*Revue Mens. de Laryngol.*, Nov. 1881.)

1594. MIOT, C., AND BARATOUX, J.—Anatomical and Physiological Considerations on the Eustachian Tube. (*Thèse de Paris*, 1881, and *Revue Mens. de Laryngol.*, March 1882.)

1595. MOURE, E. J.—A Bead Encysted in the Middle Ear. (*Revue Mens. de Laryngol.*, June 1882.)

1596. BARATOUX, J.—On Perforation of the Tympanic Membrane: its Cicatrices and their Treatment. (*Ibid.*, Nov. 1882.)

1597. RÉTIF, J.—On Insufflation of Air into the Middle Ear. (*Thèse de Paris*, 1882, and *Revue Mens. de Laryngol.*, Nov. 1882.)

1598. GELLÉ.—On Mono-auricular Audition. (*Trib. Méd.*, Nov. 5, 1882, and *Revue Mens. de Laryngol.*, Dec. 1882.)

1599. GRUBER, JOS.—Report of the Diseases of the Ear treated at his Clinic from Jan. 1. to Dec. 31, 1881. (*Revue Mens. de Laryngol.*, &c., Jan. and Feb. 1883.)

1600. BARATOUX, J.—On Colour-Hearing. (*Ibid.*, March 1883.)

1601. PUCAN, A.—On a little-known Case of Deafness. (*Revue Mens. de Laryngol.*, Dec. 1882.)

1602. MOURE, E. J.—Acute Otitis Media: concomitant Facial Paralysis: Recovery. (*Ibid.*, April 1883.)

1603. NOÛET.—Late Hereditary Syphilis: Loss of Substance of the Velum Palati, and Ulceration of the Left Tonsil in a Child of 10 years: Double Otitis Media: Good Effects from Specific Treatment. (*Ibid.*, May 1883.)

1604. GELLÉ.—On Ménière's Vertigo in its Relation to Lesions of the Oval and Round Windows. (*Ibid.*, June 1883.)

1605. WOAKES, E.—The Hygienic Management of the Catarrhally Disposed.

1606. BARR, THOMAS.—Report on 1,088 Cases of Ear Disease treated in the Glasgow Western Infirmary. (*Glasgow Med. Journal*, Feb. 1882.)

1607. THEOBALD, SAMUEL.—The Use of Constitutional Remedies in the Treatment of Ear-Diseases. (*The Medical News*, Feb. 4 and 18, 1882.)

1608. MOOS AND STEINBRÜGGE.—Histological and Clinical Report on One Hundred Cases of Polypus of the Ear. (*Centralbl. für die Med. Wiss.*, Feb. 24.)

1609. BURKNER.—Sudden Loss of Hearing, occurring in the Course of Mumps. (*Berliner Klin. Wochenschr.*, March 26.)

1610. EITELBERG.—The Influence of Treatment of One Ear on the other not under Treatment. (*Zeitschr. für Ohrenheilk.*, Band xii., and *Centralbl. für die Med. Wiss.*, July 14.)

1611. CHRISTINNECK.—Sarcoma of the Mastoid Process. (*Archiv für Ohrenheilk.*, Band xx., and *Centralbl. für die Med. Wiss.*, July 28.)

1612. HESSLER.—Erosion of the Internal Carotid Artery from Caries of the Petrous Bone. (*Arch. für Ohrenheilk.*; and *Deutsche Med. Wochenschr.*, Aug. 22.)

1613. MOLDENHAUER.—Removal of a Foreign Body from the Ear by Incision. (*Ibid.*, Aug. 22.)

ART. 1570. Moos and Steinbrügge on the Ears of a *Cretin*.—The pathological condition found in this case (*Archives of Otolaryngology*, Vol. xi., No. 1) confirms the authors in their opinion, in opposition to Knapp, that qualitative sensations of sound are perceived by bone-conduction alone.

1572. Moos and Brunner on Deafness after Mumps. In Moos's cases the affection was double, in Brunner's one-sided; in both, as usual, the deafness, which was complete, was accompanied by vertigo, but not attended by loss of consciousness. It was incurable. Brunner considers it due to an inflammatory excitation of the labyrinth, leading to copious and rapid exudation, without inclination to supuration.

1574. Knapp on Congenital Fibrous Closure of the Meatus.—This case (*ibid.*) is interesting from the operative treatment having been frustrated by the hæmorrhagic diathesis, and from the fact that, after the incision into the obstructing mass, free extravasation of blood occurred through the *incisura Santorini* (in the cartilage) into the substance and surroundings of the parotid gland.

1575. Knapp on Transient Poisoning from the Instillation of Atropia into a Healthy Ear-Canal.—In this patient (*ibid.*) the instillation twice of a few drops of a one-half per cent. solution of atropia produced symptoms of belladonna poisoning, which in the course of a few hours passed off of themselves.

1579. Moos on Railroad Accidents in connection with Bad Hearing of Engine-Drivers.—Professor Moos (*Archives of Otolaryngology*, xi. 2) quotes the opinion of the *Laureat* as to the great importance of perfect hearing in engine-drivers, and the desirability of investigations into this subject in this country, and gives one or two cases in illustration of the importance of the subject.

1583. Graf on Artificial Drum-membranes.—The author (*ibid.*) gives the preference to the cotton-pellet as a general rule, and thinks that it is useful only in cases of large perforations, with a tough (*sic*) mucous membrane of the drum-cavity, where there is but little or no secretion, and great diminution of hearing.

1584. Schalle on the Treatment of Aural and Naso-Pharyngeal Diseases.—Professor Moos has edited and written a brief introduction to this interesting and able article, which was found amongst the late Dr. R. Schalle's papers as a manuscript sketch without any heading. We can only draw attention to a few points in it. Voltolini's palate-hook the author has found a great acquisition, as in difficult cases it generally gives a sufficient view. He would, however, reserve it for such cases only. In the majority of cases we attain, he says, our object (posterior rhinoscopy) at once by the dexterous manipulation of the tongue-depressor and the mirror; in the remainder, he directs the patient to gargle with salt and water in such a manner as to wash out his naso-pharynx (for which the author gives instructions), and to practise opposite a looking-glass holding down his tongue with a spoon-handle, and allowing the soft palate to become relaxed. These manipulations, continued for some days or weeks, attain the desired object even in the most unfavourable

able cases (nervousness, abuse of alcohol, and tobacco). In the treatment of chronic naso-pharyngitis the author lays stress on three points. 1. The avoidance of the inhalation of cold and hot air, dust, and smoke; also of the ingestion of very cold or very hot, strongly alcoholic, or highly spiced foods and drinks. The former the author accomplishes by letting the patients wear in each nostril a pellet of purified sheep's wool, which permits free passage to the air, but intercepts all particles of dust, products of combustion, &c. He also employs the wool after intranasal operations. He does not prohibit smoking entirely, as the patients only obey for a short time, and then smoke again more inveterately than before; he rather aims at restricting them gradually to a minimum of smoking. Blowing the smoke through the nose he prohibits, as being specially injurious. Cigarettes he also considers very deleterious. 2. *Gargling* with lukewarm salt and water in such a manner as to wash the naso-pharynx and allow the gargle to escape through the nose. This should at first be done in the recumbent posture. 3. *Insufflations of nitrate of silver* by means of a bent glass tube passed up behind the velum palati. The finely powdered caustic is mixed with calcined magnesia, at first in the proportion of 1 : 30, the strength being gradually increased. The author also gives directions for washing out the frontal, ethmoidal, and sphenoidal sinuses with a weak solution of nitrate of silver. For thorough cleansing of the nostrils, which should be done before insufflation, the author recommends a syringe containing 100 grammes, and armed with an India-rubber tube fitted with an olive-shaped nozzle. He speaks highly of the galvano-cautery, and uses it for destroying adenoid vegetations and swellings of the mucous membrane over the inferior turbinated bones, for the removal of nasal polypi, and occasionally in cases of enlarged tonsils. In the ear he recommends it for the destruction of polypi, and for perforating the membrana tympani in chronic and subacute cases. The author advises waiting three weeks between each cauterisation in cases of adenoid vegetations, as after partial destruction they often undergo atrophy spontaneously. The author describes for this purpose a 'scythe-burner,' introduced through the widest nostril.

1585. *Brandeis on Tinnitus Aurium caused by Disturbances in the Current of the Cervical Blood-vessels.*—Dr. R. C. Brandeis (*ibid.*) relates the following cases. Case I.—J. T., aged 9, long troubled with persistent loud pulsating noises in the left ear, had, six months before his visit, been thrown from his pony, after which he complained of pain in the nape of the neck and intense occipital headache. These symptoms subsided under treatment, and a week later he was seized with violent headache in the upper cervical and suboccipital region, and a most distressing noise in the left temple. Both hearing power and ears were found normal. A week after his visit, he was seized with well marked cervical spondylitis, involving the second, third, and fourth cervical vertebrae. A corset and jury-mast with chin support was applied; and, as soon as the head was lifted from the trunk, all the head and ear symptoms ceased spontaneously. Removal of the support caused the tinnitus and headache to return with all their former intensity; they were, however, immediately relieved on its being reapplied. The author attributes the symptoms to a paresis of the vaso-motor nerves controlling the vertebral artery, the consequence of inflammation of the inter-

vertebral discs and the probable affection of the transverse processes of the diseased vertebrae. Case II.—Mrs. McF., aged 54, suffered from distracting rushing noise in the right ear, with headache, and from a fibrous goitre on the right side. Under parenchymatous injections of tincture of iodine weekly, and the internal administration of ten-drop doses of a one-half per cent. solution of fluoric acid, the goitre diminished in size, the headaches disappeared, and the tinnitus almost entirely ceased. The author regards the symptoms in this case as due to the interference with the circulation in the jugular vein produced by the goitre.

1586. *Brandeis on Objective Tinnitus.*—The case recorded by Dr. Brandeis (*ibid.*) is one of crackling objective tinnitus occurring in a hysterical young woman. The noise, which was involuntary, and unaccompanied by any visible movements of the membrana tympani, is attributed by the author to spasmodic action of the levator palati. It is to be noted that perforation of the membrane, which occurred spontaneously, did not relieve the noise. There was also some anaesthesia of the auricle and of the side of the head. [Compare a case published by 'Reporter,' *Lancet*, Aug. 7, 1880, occurring in a young woman, and in which the membrane was already perforated.—*Ref.*]

1587. *Doumergue on Ear-affections in Bright's Disease.*—Amongst twenty-seven persons suffering from different forms of Bright's disease (*Thèse de Paris*, 1881), the author found thirteen free from any difficulty in hearing, whilst in fourteen ear-affections were present (either deafness or noise). The author considers them due either to tympanic catarrh, to effusion of blood into the tympanum, or, in cases in which no lesion is appreciable during life, to oedema of the auditory nerve.

1592. *Gellé on the Eustachian Tube in Otorrhœa.*—M. Gellé showed to the *Société de Biologie*, May 14, 1881, sections of the mucous membrane of the Eustachian tube in this disease. The ciliated epithelium had disappeared, and was replaced by permanent epithelium lying on a dermo-papillary tissue.

1595. *Moure on a Bead Encysted in the Middle Ear.*—In a case in which the posterior three-fourths of the membrana tympani were destroyed, the author found (*Rev. Mens. de Laryngologie*, June 1882), in the posterior inferior part of the tympanum a smooth rounded swelling, covered with mucous membrane. Removal of the mucous membrane allowed the point of a probe to sink in to the depth of about a millimetre, and on a subsequent occasion the author convinced himself that this swelling was a bead, and that the probe had entered its hole. No attempts were made at removal, as the author thought it best to leave well alone, there being no inflammatory symptoms.

1596. *Baratoux on Perforations of the Tympanic Membrane: its Cicatrices and their Cure.*—Dr. J. Baratoux (*Rev. Mens. de Laryngologie*, Nov. 1882) describes a case of false membrane extending across the meatus 2 millimètres from the membrana tympani. Removal of a flap by incision showed a white liquid mass, consisting entirely of epithelial cells. After complete removal of the epithelial masses the membrana tympani was found entire, but much indrawn. In lax cicatrices the author has found no benefit from collodion, but recommends the application of a fine galvano-cautery point, and gives a case in which this treatment has been of benefit.

1601. *Ducan on a little-known Cause of Deafness.*—Dr. A. Ducan (*Rev. Mens. de Laryngologie, &c.*, December 1882), has found a slit-like narrowing of the cartilaginous meatus very common amongst women of the lower classes, at about the menopause. He considers it is caused by the fashion of wearing a handkerchief tied round the head, often with a band of hair lying between it and the ear. In nuns, the ears are also bound down by their headress. The result of the pressure is that the auricle is gradually flattened against the head, and the tragus applied to the meatus like a lid. This has the effect both of retaining the secretion in the meatus, and of preventing the entrance of waves of sound.

1602. *Moure on Facial Paralysis from Acute Otitis Media ending in Recovery.*—Dr. E. J. Moure (*Rev. Mens. de Laryngologie, &c.*, April 1883), after quoting from Toynbee two cases of facial paralysis occurring in the course of acute otitis media, records the following. The little daughter of Mme. X., aged $6\frac{1}{2}$ years, was seized with pains in the ear; five days later they became more violent, accompanied by discharge from the ear, and on the following morning facial paralysis was seen on the left side. Thirteen days after the first onset, the patient was examined by the author, who found facial paralysis present. The pain had almost entirely ceased and there was an abundant yellow fetid discharge from the left ear; after cleansing of which a small irregularly shaped perforation was found in the anterior inferior segment. Five days later, under instillations of subacetate of lead, the perforation healed; but, in spite of blistering to the mastoid process and electrification of the muscles, the paralysis still persisted. Under a continuation of this treatment, combined with Politzer inflations, in two months from the commencement, the paralysis began to diminish, and in another month it had completely disappeared. The author attributes the paralysis to the pressure of the accumulated pus in the middle ear, and to the swelling and hyperæmia of the mucous membrane. Timely paracentesis might in these cases, he considers, avert such a disagreeable concomitant.

1603. *Woakes on the Hygienic Management of the Catarrhally Disposed.*—Dr. Woakes gives some practical hints for the guidance of persons thus affected. In using the morning bath, he recommends that the patient should stand all the time in warm water to a depth of three or four inches, whilst the remainder of the body is being washed with good yellow soap and sponged with nearly cold water. In these persons, the sea-bath should be limited to three to five minutes, and the ears protected with Cousins' ear-protectors. In regard to the clothing of the catarrhal subject, the author recommends that his entire surface should be enveloped in woollen material all the year round. As a rule, three sets of underclothing should be provided. The winter suit should contain a maximum of wool with a minimum of cotton; the reverse holding good in the summer, and an intermediate suit being worn in the spring and early autumn. The author lays down the axiom that during four-fifths of the year in these latitudes the underclothing of every individual should consist mainly of woollen material—i.e. in all but the few weeks of summer. Cold arms the author considers a fertile source of chills. If wool cannot be borne next to the skin, he recommends suits of Indian gauze, silk, or wash-leather. The author

cautions against thin boots, damp clothes, and excess of zeal in wrapping up the neck when taking exercise. When the person is, however, exposed to draughts, whilst in a passive state as regards exercise (e.g. in a railway carriage), it is well to protect the ears and neck against them. The *bedroom* of a catarrhal patient should be warmed by means of a fire, especially if the weather be damp as well as cold, and the body should be rubbed with a dry towel before getting into bed, &c. In regard to *diet*, the author considers that a fundamental error in this respect is the excessive quantity of sugar ingested. He thinks that if a comparison were possible between the diseases prevalent in this country before and after the introduction of sugar from the West Indies, the parallel would tell against the sweet stuffs. All requirements are, he considers, satisfied if meat be taken only twice daily, and in less quantity than it is the usual habit to do. The positive indication for these patients, according to the author, is that they should partake as much as possible of fresh fruit, preferably oranges and lemons, also of such fresh vegetables as greens, celery, lettuces, &c. In regard to wines and spirits, each case must be decided on its own merits. Tobacco-smoking in any form is injurious to catarrhal patients. Exercise the author considers necessary, and he recommends tricycling. A few remarks on the avoidance of ear-picks, &c., and directions for syringing an ear, conclude this paper, which is a chapter out of the author's forthcoming work on 'Catarrh, &c.'

1606. *Barr on 1088 Cases of Ear-Disease.*—Besides some carefully compiled tables of these cases, the author (*Glasgow Med. Jour.*, February 1882) gives his experience of paracentesis of the membrana tympani. In cases of purulent, mucous, or serous exudation in the cavity of the tympanum or in the interstices of the layers of the tympanic membrane, the author has found it of greatest value. On the other hand, when no fluid secretion exists, according to the author's experience, cutting operations on the membrana tympani are 'not at all notably successful.' Once he divided the tensor tympani to relieve distressing tinnitus, but without effect. He has never succeeded in retaining a permanent opening in the membrana tympani.

1607. *Theobald on the Constitutional Treatment of Ear-Diseases.*—Dr. Theobald (*The Medical News*, Feb. 4 and 18, 1882), after quoting Wilde's regret, made thirty years ago, that local remedies were too much neglected in the treatment of diseases of the ear in favour of constitutional ones, expresses his opinion that we have now run to the opposite extreme. For his part he has learnt, he says, with each succeeding year of experience, to place a higher estimate on the value of internal medication in diseases of the ear. Mercury the author places at the head of the list; and in chronic or subacute inflammation of the middle ear he prescribes the biniodide of mercury (in doses of from $\frac{1}{4}$ to $\frac{1}{8}$ grain) daily, rendering it soluble by the addition of 2 grains of iodide of potassium to each grain of the mercurial salt. The author combines this, be it noted, with careful local treatment; but he finds that a marked change for the better often occurs when the dose is increased to $\frac{1}{4}$ th or perhaps $\frac{1}{2}$ th of a grain. Where there is great susceptibility to iodine, he employs the bichloride instead. It is especially in sclerosis that the author has found good effects from mercury. In specific cases, it is of course doubly efficacious.

He also strongly recommends the biniodide in inflammation involving the nervous apparatus of the ear and in Ménière's disease. The same remedy (mercury) is advised by the author in intracranial complications occurring in the course of diseases of the ear, and two cases in exemplification of this are given. In the first, mild delirium and well marked aphasia, occurring after the sudden arrest of a tympanic otorrhea by powdered alum, subsided under the prolonged administration of small doses of biniodide of mercury. Syphilis was excluded. In the second case, that of a man aged 23, there was pain in the left ear, and after removal of some impacted cerumen the membrane was found opaque, thickened, and sodden in appearance. The author diagnosed chronic catarrh of the middle ear, with an acute attack of inflammation of the membrane or tympanic cavity causing the pain. Five days later the mastoid region became swollen, red, and very sensitive to the touch, the pain at the same time having much increased and being chiefly postaural in situation. A diagnosis of inflammation of the mastoid cells was made, and the patient was ordered 1-16th grain of biniodide of mercury thrice daily, and four leeches were applied beneath the auricle. Two days later the pain had somewhat subsided, but the redness, swelling, and tenderness over the mastoid bone had increased, and there was stiffness of the muscles on the left side of the neck, producing torticollis. Neither Wilde's incision nor paracentesis of the membrana tympani was performed, but a powder containing 4 grains of calomel and 10 grains of rhubarb was ordered for two nights running, and the biniodide to be continued unless salivation returned. Two days later the patient was much better, the torticollis and postaural redness had entirely gone, and the swelling and tenderness had greatly diminished. Another similar powder was ordered, and two days afterwards the mastoid symptoms had all disappeared. A slight relapse occurred subsequently, but yielded to the continued administration of the biniodide, and the patient eventually recovered completely. As regards other remedies, the author employs iodide of potassium in syphilitic and rheumatic cases, chloride of ammonium in catarrh, pyrophosphate of soda (in 10 to 20 grain doses) in furuncular and carbuncular inflammation and in eczema of the auricle. In acute eczema of the auricle, in diffuse and furuncular inflammation of the auditory canal and in simple and complicated otitis media, the author recommends 2 to 4 grains of calomel, combined with scammony and rhubarb, repeated three or four times at intervals of 24 or 48 hours. He has not obtained any decided results from the use of bromide of potassium, hydrobromic acid, or ergot, in tinnitus.

E. CRESSWELL BABER, M.B.

1608. *Moos and Steinbrügge on One Hundred Cases of Polypus of the Ear.*—Drs. Moos and Steinbrügge (*Centralbl. für die Med. Wiss.*, Feb. 24) refers to 100 cases, of which sixty-six were males, twenty-seven females; of seven the sex was not recorded. As to the causes of the polypoid formation, suppurative inflammation was traced in sixteen as the result of scarlet fever. Single polypi were found in eighty-one cases, multiple in nineteen. Discharge from the ear was wanting in only one instance. The seat of the growth was the outer meatus in twenty-five cases, in the tympanum sixty-eight times. In more than 80 per cent. of the cases the drum was destroyed. Perfect cure was effected in only twenty-

nine; relapses took place in twenty-three cases of apparent removal of disease. Complete destruction of the growth by injections was observed in five cases. The polypus in ten instances was coexistent with caries. Four instances, before operation, were complicated with brain-symptoms, which afterwards subsided. Of the histological characters, it was noted that fifty-five consisted of granulations, or rounded polypi, twenty-seven of angiofibroma, fourteen of pure fibroma, and four of myxoma. The angiofibroma the authors consider to have been developed from the granulation, through obliteration of vessels and deprivation of blood-supply. The pure fibroma they regard as having only an indirect relation to the vascular supply. In ten cases, deposits of cholesteatoma were found in the centre of the tumours. Other histological elements were extravasation of blood, pigmentary metamorphosis, new formations of osseous substance, and cysts. The therapeutic means are, frequent washing of the meatus, and the careful dropping into the ear of solution of acetate of lead twice a day, unless pain be caused by the application.

1609. *Burkner on Sudden Loss of Hearing, occurring in the Course of Mumps.*—Dr. K. Burkner, of Göttingen (*Berliner Klin. Wochenschr.*, March 26), relates the following case. C. von K., aged 17, on Dec. 12, 1882, became the subject of mumps (then epidemic). On the 14th he suffered severely from tinnitus aurium, on the right side, and on the 15th found deafness on the same side. Examination of the meatus detected nothing abnormal. On the nights of the 17th and 18th violent vomiting occurred, which had been recognised by Dr. Wiese as a symptom of affection of the labyrinth. In Jan. 1883 the deafness and noises in the ear had not diminished. Dr. Burkner entertained an unfavourable prognosis, but of the result nothing further is stated. The case is related more with reference to indication of labyrinthine affection in such cases, and in illustration thereof Dr. Burkner gives a summary of cases that have been placed on record.

1610. *Eitelberg on the Influence of Treatment of one Ear upon the other not under Treatment.*—Dr. Eitelberg (*Zeitschr. für Ohrenheilk.*, Band xii., and *Centralbl. für die Med. Wiss.*, July 14) submits the following conclusions from his observations. 1. In many cases, the treatment of one organ is attended by improvement in acuteness of perception in the other; the reverse being seldom the case. 2. The greatest difference in respect of exaltation of function on the sound side occurs in cases of purulent inflammation of the tympanum. 3. In affections of both ears, the exclusive treatment of one is often attended with benefit to both. 4. This improvement is not always immediate, but occurs at a later period. 5. In other cases, after a certain time, a decline of the sympathetic improvement takes place. An explanation of this fact is to be found in the observation by Urbantschitsch, that by stimulation of the sensitive fibres of the trigeminus on one side an influence is not only exerted upon the affected side, but is also extended to the other side.

1611. *Christinneck on a Case of Sarcoma of the Mastoid Process.*—Dr. Christinneck describes the following case (*Archiv für Ohrenheilk.*, Band xx., and *Centralbl. für die Med. Wiss.*, July 28). The patient was a child, a year and a half old, who, as the first indication of disease, had left-sided facial paralysis. After some weeks, a swelling appeared over the mastoid process, simultaneously with which

vomiting occurred, and continued for eight days. The child became apathetic and drowsy. The swelling was hemispherical, and presented a feeling of fluctuation. The integuments over the tumour exhibited no change. The meatus auditorius was dry; its superior and posterior wall appeared drawn inwards. An incision was made into the tumour, whence issued a soft yellowish mass, resembling the tissue of infiltrated lymph-gland. The swelling rapidly increased in extent, and, notwithstanding careful dressing with carbolic water, an ichorous ulceration occurred. At a later period paralysis of the upper and lower extremity supervened, and the child died two and a half months from the first appearance of the disease. On *post mortem* examination, the growth was found to be of the size of a man's fist, and had advanced so far forward as to have obliterated the meatus; it had also pierced the cranial bones, so as to come into contact with the temporal lobe of the brain. The squamous portion of the temporal bone, with the mastoid process, and a considerable portion of the parietal bone, had disappeared. A small tumour, of the size of a cherry, was in contact with the pyramid. The cortical substance only of the temporal lobe remained; the white substance had been altogether removed by the tumour. The nature of this growth was that of a round-celled sarcoma, originating probably in the dura mater, or in the external periosteum of the mastoid process.

W. B. KESTEVEN, M.D.

1612. *Hessler on Erosion of the Internal Carotid Artery from Caries of the Petrous Bone.*—Dr. Hessler, of Halle, has written an article in the *Arch. für Ohrenheilkunde* (*Deutsche Med. Wochens.*, August 22) on erosion of the internal carotid artery in consequence of caries of the petrous bone. He has collected all the cases which he could find, from case-books and *post mortem* records, and has compiled an account of the occurrence and course of this happily rare complication. The intimate connection between the mucous membrane of the middle ear and the dura mater, which is kept up by the tegmen tympani, causes usually a rapid infection of the meninges in otitis and death from meningitis; but if the process in the bone go on longer, some sudden increase of arterial tension, as in coughing or sneezing, may be enough to cause the softened carotid wall to give way and the fatal hæmorrhage to result. It may be considered to have taken place when a thick column of blood spurts from the ear with each pulsation; and although it may be temporarily arrested, it will most likely return and prove fatal. Ligature of the common carotid artery is the only treatment, and even then a return of hæmorrhage may follow the establishment of the collateral circulation.

1613. *Moldenhauer on Removal of a Foreign Body from the Ear by Incision.*—From the *Arch. für Ohrenheilkunde*, the *Deutsche Med. Wochens.* of August 22 quotes a case related by Dr. Moldenhauer, of Leipzig, in which a stone fixed in the ear of a child, aged 3½, could not be removed by pincers or by the injection of water. Recourse was then had to more active interference; and an incision was made through the cartilage of the ear close to the mastoid process, by means of which the foreign body was removed after a little manipulation. The wound healed quickly, and left no bad effects.

ALICE KER, M.D.

DISEASES OF THE THROAT AND NOSE.

RECENT PAPERS.

1614. GUINIER.—Treatment of Diseases of the Throat and Nose. (*Revue Mens. de Laryngol.*, April 1881.)
1615. RUDOLPH.—Efficacy of Eucalyptus in Acute Coryza. (*Revista de Med.*, March 5, 1881, and *Ibid.*)
1616. HERING, TH.—On Chronic Pharyngitis in general, and Lateral Pharyngitis in particular. (*Revue Mens. de Laryngol.*, May 1882.)
1617. COHEN, J. SOLIS.—Does Excision of the Larynx tend to the Prolongation of Life? (*Trans. of the College of Physicians of Philadelphia*, Vol. vi.)
1618. MOURE.—A Case of Laryngitis with Concomitant Nervous Paralysis. (*Revue de Laryngologie*, June 1883.)
1619. HABSBART.—The Treatment of Laryngeal Tuberculosis. (*Zeitschrift für Klin. Med.*, Band v., Heft 3, 1883.)
1620. OLIVER.—Fracture of the Larynx by Direct Violence. (*Lancet*, June 30, 1883.)
1621. LANGA.—Isolated Paralysis of the Ary-arytenoid Muscle. (*Revue Mensuelle de Laryngologie*, April 1883.)
1622. GUINIER.—The Part played by the Free Portion of the Epiglottis and the Glosso-epiglottidean Fossæ during Deglutition. (*Ibid.*, June 1883.)
1623. CLADO.—Epithelioma of the Tonsil. (*Gazette des Hôpitaux*, March 22, 1883.)
1624. LINCOLN.—The Results of the Treatment of Naso-Pharyngeal Fibromata. (*Congress of the American Laryngological Association*, May 1883; *New York Med. Record*, June 2, 1883.)
1625. MORGAN.—A Case of Pharyngeal Tumour. (*Ibid.*)
1626. ASCH.—A Case of Sudden Death occurring after Tracheotomy. (*Ibid.*)
1627. DELAVAN.—The Anatomy of the Lacune Tonsillarum. (*Ibid.*)
1628. MAJOR.—The Value of Posilaryngeal Papilloma as a means of Diagnosis in Tubercular Disease. (*Ibid.*)
1629. HOOPER.—Experimental Researches on the Tension of the Vocal Bands. (*Ibid.*)
1630. ALLEN.—Asymmetry of the Nasal Chambers without Septal Deviation. (*Ibid.*)
1631. COHEN.—A Case of Thyrotomy for Morbid Growth, with Subsequent Development of Epithelioma in the Cutaneous Cicatrix, but without Involvement of the Interior of the Larynx. (*Ibid.*)
1632. WHISTLER.—Malignant Disease of the Tonsil. (*Med. Times and Gazette*, May, p. 579.)
1633. SMITH.—Three Cases of Successful Removal of Tracheotomy-Tubes. (*Lancet*, June, p. 1083.)
1634. LUBLINSKI.—Syphilitic Stenosis of the Oesophagus. (*Berliner Klin. Wochens.*, Aug. 20.)
1635. KRISHABER.—Two Cases of Cancer of the Thyroid Body. (*Annales des Mal. de l'Oreille, &c.*, and *Centralbl. für die Med. Wiss.*, Aug. 18.)
1636. CHIARI AND RIEHL.—Lupus Vulgaris of the Larynx. (*Wiertelj. für Dermat.*, and *Centralbl. für die Med. Wiss.*, July 14.)

ART. 1615. *Rudolphi on Eucalyptus in Acute Coryza.*—Dr. R. Rudolphi (*Revista de Med.*, March 5, 1881) recommends that a few dried leaves of the eucalyptus should be chewed, and the saliva swallowed. Provided the coryza is acute, it may thus be arrested in less than one hour.

1616. *Hering on Chronic Pharyngitis in general, and on Lateral Pharyngitis in particular.*—Dr. Th. Hering, of Warsaw, describes in detail (*Revue Mens. de Laryngologie*, May 1882) what he terms lateral

pharyngitis—*i.e.* pharyngitis affecting the salpingo-pharyngeal folds. The author recognises two forms of this—1. granular lateral pharyngitis; and 2. hypertrophic lateral pharyngitis. Granular lateral pharyngitis is characterised by a swelling of the salpingo-pharyngeal folds, which are strewn with oval or elongated prominences. The hypertrophic form, on the contrary, is marked by thick, reddish, smooth swellings, which are sometimes seen after the faucial pillars have been drawn aside, and occur either on one or on both sides. They consist of a hypertrophy of the mucous membrane, which forms the continuation of the salpingo-pharyngeal folds. This swelling impedes deglutition, and is much more painful to the touch than those in the granular form. The author considers that in the hypertrophic variety the morbid process commences in inflammation of the posterior pillar of the fauces. In lateral hypertrophic pharyngitis, the patients also often complain of pricking and pain in the ears, and of temporary deafness. In the treatment of the two forms of lateral pharyngitis, the author recommends the following. In acute cases, purgatives and emetics (ipecacuanha) are very efficacious; also ice, externally and internally, and six or eight leeches to the sides of the throat. Hot and highly spiced food is to be avoided, as well as prolonged use of the voice and the employment of tobacco. Dryness of the throat is to be relieved by gargles of bromide of sodium (8:400); and in cases of laryngeal implication, the inhalation of steam with or without chloride of ammonium (4:800) is recommended. In chronic granular pharyngitis, the author uses the galvanic cautery, or applications of solid nitrate of silver or of chromic acid to each spot. While recommending the galvanic cautery highly in both the forms of lateral pharyngitis, the author warns against the employment of it, unless one be convinced of the symptoms being really maintained by the granules in question.

1617. Cohen on *Excision of the Larynx*.—Dr. J. Solis Cohen (*Trans. of the College of Physicians of Philadelphia*, Vol. vi.) gives a table of sixty-five cases of complete laryngectomy, including and supplementing the tables of Mackenzie, Foulis, Blum, and Bürow. In five of these the larynx was removed for sarcoma, two with exceptional results—viz. one by Bottini, of Turin, in which the patient was reported well more than six years after the operation; and one by Casselli, of Reggio-Emilia, in which the patient was reported well practically two years afterwards. The remaining three cases of sarcoma lived respectively nearly seven, fifteen, and seventeen and a half months after the operation. Of the fifty six cases which were operated on for carcinoma, more than 30 per cent. terminated fatally within eight days, and at the end of six months 62½ per cent. of the total patients operated on for carcinoma were dead. The tables show that during the first few days the danger is from shock or pneumonia, chiefly the latter. After the first fortnight is passed, the life of the patient appears comparatively secure up to the fourth month, when death begins to take place from recurrence. Contrasting the results of laryngectomy with the duration of life after tracheotomy has been performed, in a few cases of carcinoma of the larynx which have been under his own care, the author arrives at the conclusion that excision of the larynx for carcinoma does not tend to the prolongation of life; for, the prolonged existence to the very few seems purchasable only at the sacrifice of

the remnants of existence of many others. The greatest good, he considers, to the greatest number appears better secured by dependence on the palliative operation of tracheotomy.

E. CRESSWELL BABER, M.B.

1618. *Moure on a Case of Laryngitis with Concomitant Nervous Paralysis*.—The patient was a girl of fourteen (*Revue de Laryngologie*, June 1883), who had suffered from previous attacks of aphonia which, however, had yielded to treatment in a month or fortnight. On this occasion the aphonia was persistent, and was accompanied with difficulty in respiration and an aphonic cough. Paralysis of the posterior muscles (ary-arytenoid) was diagnosed; but the case was further complicated by what appeared to be a membranous bridge stretching between the vocal cords in their anterior thirds. As the pharynx and naso-pharynx were also covered by greenish crusts, Dr. Moure attributed the bridge-like membrane to a collection of mucus, the accumulation of which had been favoured by the inactivity of the vocal cords. It was dispersed on the introduction of an electrode in the larynx. Mobility of the cords and improvement of the voice followed the application of the electrode and of chloride of zinc, and the patient was discharged cured.

1620. *Oliver on Fracture of the Larynx by Direct Violence*.—This case is reported in the *Lancet* (June 30, 1883). The injury had resulted from a blow with a piece of wooden rail. The *post mortem* appearances were in every respect those of death by suffocation. The thyroid cartilage, more especially the right half of it, was broken up into many pieces, one of which hung free in the lumen of the tube. Ossific change was very extensive. There were considerable external wounds of the front of the neck. The facts taken together all pointed to fracture by direct violence.

1621. *Langa on Isolated Paralysis of the Ary-arytenoid Muscle*.—Dr. Langa publishes this case (*Revue Mensuelle de Laryngologie*, April 1883), believing it to be interesting because of the resistance of the paralysis to internal electrification, and also because of the gradual improvement of the voice with the equally progressive diminution of the glottic triangle, which confirms his opinion that aphonia is absolute in complete paralysis of the arytenoid muscle, and the voice hoarse in paresis. He goes further, and says that, if there exist a single case in which aphonia is occasioned by isolated paralysis of the ary-arytenoid muscle, this case alone would be sufficient to prove that this symptom may be the result of the want of action of this single muscle, and we might then conclude that, when the muscle is completely paralysed, aphonia should be the rule. A lady, 23 years old, suffered from complete aphonia, and had been subject to similar attacks since the age of 16. She was of a very nervous temperament, but did not suffer from hysterical attacks. On laryngoscopic examination, the vocal cords, when E was sounded, came into contact in their anterior three-fourths only, but remained apart at their posterior fourth. Dr. Moure diagnosed a complete and isolated paralysis of the ary-arytenoid muscle. As bromide of potassium and external application of electricity failed to relieve the symptoms, he practised direct electrification of the paralysed muscle. A sensible improvement in the voice followed, and the space between the posterior three-fourths of the vocal cords became less. When the patient was seen eight days later, the paralysis was not so complete

the anterior angle having become more acute; the voice was also better, but did not regain its normal sound until two more intralaryngeal faradisations had been practised. The patient remains well.

1622. *Guinier on the part played by the Free Portion of the Epiglottis and the Glosso-epiglottidean Fosse during Deglutition.*—The author's conclusions (*Revue Mensuelle de Laryngologie*, June 1883) on this subject are as follows. 1. The free portion of the epiglottis acts as a guard to the larynx during mastication of a mouthful of food. 2. The glosso-epiglottidean fossæ are the reservoirs ready to receive the mass of food preparatory to its being swallowed. 3. Deglutition of food only begins at the pharyngo-epiglottidean entrance after it has undergone the action of the tongue, of the hard and soft palate, and of the pillars of the fauces. 4. The mechanism of mastication consists of—*a.* the trituration of the food; *b.* its conversion into a bolus by trituration and salivation; *c.* its passage into the glosso-epiglottidean fossæ by the combined action of the tongue, the hard and soft palate, and the pillars of the fauces; *d.* its accumulation in the glosso-epiglottidean reservoirs, preparatory to the single act of deglutition by which it is forced down into the deeper part of the œsophagus.

1623. *Clado on Epithelioma of the Tonsil.*—This case is contributed to the *Gazette des Hôpitaux*, March 22, 1883. The patient was a man 43 years old. M. Polaillon first tied the external carotid with catgut, and then made a curved incision from the left labial commissure to join the incision of the ligature near the angle of the jaw. The inferior flap was dissected down to the bone, exposing the jaw. In spite of the ligature of the carotid artery, the arteries bled abundantly. The lower left lateral incisor was extracted, and the jaw divided by a chain-saw, first at this spot and then through the middle of the ascending ramus. The piece of bone having been removed, M. Polaillon thrust a bent trocar through the floor of the mouth, making it penetrate the skin externally a little above the greater cornu of the hyoid bone. A platinum wire was introduced in the tube of the trocar and the latter pulled out, the wire being arranged in such a manner as to form a loop which embraced the posterior third of the left half of the tongue and the floor of the mouth, as far as the anterior section of the maxillary bone. The wire having been adapted to the galvano-cautery and put in communication with the battery, all these tissues were cut. Another loop was arranged in the same manner to cut the tissues beneath the tonsil from the base of the tongue to the pharynx, while a third wire placed behind the tonsil cut the wall of the pharynx. The left half of the soft palate was removed with the thermo-cautery. The vast wound was cauterised, and the few bleeding arteries were ligatured; the tissues of the cheek were sutured. No drainage-tube was inserted. The operation lasted 1½ hours. The patient was fed by an India-rubber tube, and left the hospital well one month afterwards.

1624. *Lincoln on the Results of the Treatment of Naso-Pharyngeal Fibromata, with a Demonstration of Successful Cases, together with a Table of Seventy-four Operations by Different Surgeons.*—This paper was read before the Congress of the American

Laryngological Association, May 22, 1883. Of the operations involving section of bone there were thirty-nine, performed upon twenty-eight patients. In fourteen, recurrence took place within a year; in fourteen, no recurrence was reported; in thirteen, no record had been obtainable since the operation; in eight, death was attributable to the operation; in three, the operation nearly proved fatal. Removal by knife, scissors, forceps, &c., was performed seven times upon seven patients. There were no recurrences; in five cases there was no subsequent record; one case was under observation one year or more subsequent to the operation without recurrence. Removal by the écraseur or ligature was performed twelve times upon eleven patients. There were six recurrences within one year; four were under observation for one year or more without recurrence; and of two there was no record subsequent to the operation. The number of cases treated by injections and cauterisations were two; of these there was one recurrence within one year, and of the other case there was no record subsequent to the operation. Removal by electrolysis took place in three cases, with one recurrence within the year; of the other two, there was no record. In eleven operations performed on ten patients, the galvano-cautery écraseur was used; there were three recurrences within one year; six were under observation for one year or more without recurrence; there were no fatal cases; in two there was no record. Dr. Lincoln also reported a case where he removed one of these growths with the galvano-cautery écraseur, and subsequently destroyed the stump by the galvano-cautery. He passed a loop of platinum wire through the nostril and behind the tumour, after which the patient was etherised, the battery attached, the pedicle severed, and the tumour removed through the mouth. No trace of the growth remained five months after the operation.

1625. *Morgan on a Case of Pharyngeal Tumour.*—The tumour (pedunculated sarcoma) was 2¼ inches in its lesser, 2½ in its greater circumference. Its pedicle was ¼ inch long. This could be easily grasped between the tips of the middle and index fingers, and in this way the tumour was twisted from its attachment. Dr. Morgan thought the opinion that purely pharyngeal tumours are rare was erroneous. He had found sixty-one reported cases during a period of seventy-one years, which originated within the pharynx or extended into the inferior pharynx. Of the sixty-one cases, fourteen were sarcomata and ten fibromata. [The reporter removed a similar growth from the pharynx a short time ago. It had a similar pedicle, and was readily twisted off from its attachments by means of forceps introduced behind the soft palate.—*Rep.*]

1626. *Asch on a Case of Sudden Death occurring after Tracheotomy.*—In this case, the patient was progressing favourably, but two days after the operation he suddenly fainted, then rallied, but soon afterwards fell into a state of collapse and died within a few minutes. At the necropsy, nothing was found to account for the sudden death.

1627. *Delavan on the Anatomy of the Lacuna Tonsillarum.*—The author directed attention to two special points: 1. the existence of a large single cavity in the interior of each tonsil, which includes several follicular folds and procures their common discharge at the periphery; by this arrangement the actual superficial extent of the tonsil is increased; 2. the unusual indestructibility of the

* This and the following seven papers were read before the Congress of the American Laryngological Association, held at New York, May 1883. Reference to them will be found in the *New York Medical Record*, June 2, 1883.

attenuated mucous membrane in the depth of these large lacunae.

1628. *Major on the Value of Postlaryngeal Papillomata as a Means of Diagnosis in Tubercular Disease.*—Dr. Major discussed two varieties of these—the velvety, and the filamentous, or feathery, probably two degrees of the same disease. The author related several cases in which, from these growths, he had diagnosed tubercular disease. In the discussion that followed, Dr. Asch said that he had often seen this peculiar appearance in the larynx in cases of tuberculosis, but did not regard it as absolutely diagnostic, as he had seen it occur in other cases as well. The author agreed that where the velvety appearance existed there was not necessarily actual pulmonary complication, but he had always found tubercular tendency and tuberculosis in the family. As far as he had observed, after the filamentous growths had appeared, recovery had not taken place.

1629. *Hooper on Experimental Researches on the Tension of the Vocal Bands.*—Dr. Hooper believed that the following facts had been established by a series of experiments made by him in conjunction with Professor Bowditch. With high pressure, the cricoid cartilage invariably moved more than the thyroid; and with high pressure after section of the muscles, both cartilages moved upward more freely, but the stretching of the vocal bands was less. Air escaping from the lungs produced decided upward movement of the cricoid cartilage in addition to the general rise of the larynx, the upward movement increasing in proportion to the force with which the air was expelled from the chest. The general conclusions were these. The cricoid cartilage is the most movable part of the laryngo-tracheal tract; the crico-thyroid muscle should be described as arising from the thyroid cartilage, and inserted into, and giving motion to the cricoid; the air-blast is a direct and important longitudinal tensor of the vocal bands.

1630. *Allen on Asymmetry of the Nasal Chambers without Septal Deviation.*—Dr. Allen believed that a difference in the diameter of the posterior nares would be found to exist quite generally. He had found corresponding to it an asymmetry of the parietal protuberances, and this might perhaps be one means by which an external examination of the head might lead to the inference that the nasal passages were deformed.

1631. *Cohen on a Case of Thyrotomy for Morbid Growth; with Subsequent Development of Epithelioma in the Cutaneous Cicatrix, but without Involvement of the Interior of the Larynx.*—The patient, 63 years old, had suffered from hoarseness for two years, and the general health was much impaired. Dr. Cohen found and removed the laryngeal growth, which on microscopical examination was reported to be papillomatous. Two years after the operation, a small soft nodule in the skin appeared, over the right wing of the thyroid cartilage, but not attached to the cartilage. This was removed, and found to be a specimen of tubular epithelioma. Ten weeks later, another nodule appeared over the left wing of the thyroid cartilage, and was attached to the muscle below; this was also removed, and found to be epitheliomatous. Dr. Cohen removed all the skin in the neighbourhood which was infiltrated with epithelioma, and filled the space by making a transplantation of flaps from the upper part of the chest. The case did well for some time, but even-

tually proved fatal. Dr. Cohen looked upon it as epithelioma induced in the cicatrix by irritation of the collar.

W. J. WALSHAM.

1632. *Whistler on Malignant Disease of the Tonsil.*—Dr. MacNeill Whistler, in the *Med. Times and Gazette*, May 1883, p. 579, gives an interesting article on malignant disease of the tonsil, and, as it is rare for cancer to originate in the tonsil, the author has communicated the case of a man, aged 44, who applied to him for relief from a swelling on the right side of the pharynx, which had been noticed by the patient for about six months. After trial, with inhalations and administration of drugs, it was decided to remove the growth by the écraseur. This was done, and the patient had relief for about eight weeks. (The growth, when examined, was found to be a typical carcinoma). The man returned after eight weeks, complaining of heat and itching at the seat of the operation, and on examination it was seen that there was a roughness, like large granulations, springing from the tonsillar space. Local applications were repeatedly made, but nothing stopped the growth, and at last a second operation was performed by Mr. Treves. This time the right common carotid artery was ligatured, and the diseased mass removed by operating through the mouth with the galvanocautery. The patient recovered from the operation, but the growth rapidly returned, and, though the patient was relieved from urgent symptoms for a time, nothing stopped the onward progress of the tumour. In these cases Dr. Whistler suggests that, if urgent symptoms can be relieved and ease from suffering given for a time, some operation is desirable; but, as a rule, palliative measures are the only ones to be resorted to, and, when suffocation seems imminent, tracheotomy should take the place of all other operative procedures.

1633. *Smith on Three Cases of Successful Removal of Tracheotomy-Tubes.*—Mr. H. Smith, in the *Lancet*, June 1883, p. 1083, records three cases which came under his care during the time when he was house surgeon at Great Ormond Street Hospital for Children. In each case, tracheotomy had been performed some months previously; but a tube had been retained in the wound, as it was considered dangerous to allow the opening to heal. Mr. Smith points out the necessity of dispensing with the tube as early as possible, in cases where the operation is performed for temporary laryngeal obstruction. One reason is that, if children be sent home and entrusted to the care of inexperienced people, they may suddenly have the tube dislodged, and a sudden attack of dyspnoea coming on would cause alarm to friends, and danger to the patient. Also a chronic bronchial catarrh is often set up, owing to the air not being properly filtered by the nose and mouth before it enters the lungs. Fear is one difficulty in the early treatment of these cases; as long as the tube is in, the children breathe easily; but when it is withdrawn, the slightest effort, or the least tendency to spasm, causes them alarm, and it is only by training the child early to do without the tube, aided by firmness and kindness, that one can dispense with its use. If a tube have been in a long while, the usual rhythm of the muscles of the larynx is disturbed, and it is necessary to exercise these muscles in the early days, to prevent them from losing their accustomed mode of action.

RICHARD NEALE, M.D.

1634. *Lublinski on Syphilitic Stenosis of the Œsophagus.*—Notices of the occurrence of this

affection are to be found in the old writers, *e.g.* Astruc, Carmichael, Von Ruysch, Haller, and Severino. Their accounts, however, were received with mistrust, so that until lately no other cases were recorded. Virchow has recorded three cases, Wilks one, and Klob one. Dr. W. Lublinski (*Berliner Klin. Wochenschr.*, Aug. 20) places on record two more instances, not, however, verified by *post mortem* examination. 1. A man, aged 29, was admitted into hospital in Nov. 1880, suffering from difficulty and pain in swallowing. There was no history of local lesion, nor was the dysphagia spasmodic. The larynx and pharynx, as far as could be seen, were healthy, except that on the right side the uvula was drawn aside by an old cicatrix. Examination of the œsophagus was made by means of a sound, which passed as far as the level of the sixth dorsal vertebra, where it met with obstruction, which was not insurmountable. A moderately thin bougie passed, producing to the touch the sense of roughness on its withdrawal. In point of diagnosis, the patient's age excluded the probability of cancer, whilst the occurrence of a chancre ten years before, and the present existence of psoriasis of the hands, indicated the syphilitic origin of the affection. Iodide of potassium was administered in full doses, and in a few weeks a sound, No. 8, could be passed, and by March 1881 all treatment was discontinued. 2. The second case was that of a man, aged 54, who came under treatment for pain in deglutition, which had prevented his swallowing other than finely pounded food for eight weeks previously. At the side of the tongue, near its apex, was a tumour of the size of a bean, with a rough ulcerated surface. The submaxillary glands were slightly enlarged. The pharynx appeared normal, and the larynx was unaffected. On attempting to pass a sound, it met with an obstacle at about the level of the fifth dorsal vertebra. A thinner instrument could be passed, attended, however, with the sensation as of a rough grating. The patient had a cachectic aspect, but nothing abnormal was detected in important organs. At the age of 22 years he had suffered from syphilis, but had since that period been free from symptoms of the disease. A gummatous humour existed on the tongue. Iodide of potassium was taken freely, under the influence of which the tumour decreased. A bougie was also passed daily. The stricture gradually diminished, until in about five months he could swallow solid food. The patient was instructed to use the sound himself at regular periods, in order to prevent a recurrence of the stenosis. The author enters at considerable length into the literary history of this malady, its pathology, and therapeutics.

1635. *Krishaber on Two Cases of Cancer of the Thyroid Body.*—Herr Krishaber relates (*Ann. des Mal. de l'Oreille*, March 1883, and *Centralbl. für die Med. Wiss.*, Aug. 18) two examples of this rare form of cancer. One was that of a man, aged 68, who for six years had suffered deafness on one side. During the same period he had experienced pains in the larynx, with loss of voice. Laryngoscopic examination detected on both vocal cords cancerous growths, which were removed by galvanic cautery. Cough, with sanguineous expectoration, occurred, but neither dyspnoea nor dysphagia was present. After a time a sense of suffocation came on, for which laryngotomy was performed, and arsenic was administered. Hemorrhage commenced from the cannula. It was found that the tumour was breaking up. The hemorrhage was stayed, and the

patient held his ground, but in about six months another tumour formed, and was attended with severe hæmorrhage, which was arrested by perchloride of iron. This growth perforated the trachea. A long cannula was introduced. Respiration remained unaffected, and the patient showed no sign of a cachexia. The tumour had reached to the level of the vocal cords. The pharynx and œsophagus remained intact. [The further result is not stated.—*Ref.*] The second case was that of a lady, aged 50, who suffered from cancer of the larynx and œsophagus, and in whom, after the operation of tracheotomy, the disease extended to the thyroid body, attended with an ulceration, from which a sanguineous fluid discharge occurred, after which the patient lived only six months.

1636. *Chiari and Riehl on Lupus Vulgaris of the Larynx.*—Chiari and Riehl (*Wiertsch. für Dermatol.*, and *Centralbl. für die Med. Wiss.*, July 14) thus describe this form of disease of the larynx. It begins with an excrescence varying from the size of a millet to that of a hemp-seed, more or less granular, either singly or in groups, upon hyperæmic mucous membrane. This group spreads to adjacent parts, so as to give sometimes the appearance of thickened membrane, in some cases becoming rugged uneven patches rising above the surface. These disappear either by exfoliation or by ulceration. After a while, fresh reddish-brown lupus-nodules form in the cicatrices. These are most frequently seen on the epiglottis, next on the arytenoid folds, and lastly on the vocal cords. The cartilages are seldom affected. The diagnosis from syphilis is not easy, but the authors note that the latter attacks several parts, whereas lupus is a local disease. Lupus ulcerations show irregular, soft, cedematous edges, and are distinctly different from syphilitic ulcers.

W. B. KESTEVEN, M.D.

REVIEWS.

ARTICLE 1637.

Clinical Chemistry: an Account of the Analysis of Blood, Urine, Morbid Products, &c., with an Explanation of some of the Chemical Changes that occur in the Body in Disease. By CHARLES HENRY RALFE, M.A., M.D. (Cantab.). London: Cassell & Co. 1883.

THIS small volume has been written to meet an evident want, and is admirable both in conception and in execution. Dr. Ralfe's acquaintance with clinical chemistry has been gained not only by original research but in teaching, and his experience as a teacher is shown in every page. The first two chapters treat of the chemical constitution and affinities of the organic and inorganic constituents of the animal body. The third chapter opens with a discussion of the chemical and physical properties of normal blood, and full directions are given for its examination at the bedside; the toxic conditions are also shortly described, but the very immature condition of our knowledge in this department does not permit the writer to enter into much detail in a book intended for the use of students. Chapter IV. contains a very admirable account of the morbid conditions of the urine, as well as practical directions for its examination: these are more accurate and exhaustive than those of any manual for the clinical examination of the urine with which we are acquainted. The much disputed question of the im-

portance of uric acid in the metabolic processes of the body is ably discussed, and the whole theory of lithæmia is reviewed in the light of recent researches. Albuminous bodies in the urine are also thoroughly described and compared; the various tests which have recently come into vogue are explained, and methods are also given for the recognition and estimation of peptones; the occurrence of these latter bodies in urine is a subject of some importance, which yet requires to be worked out. A chapter is also devoted to the morbid conditions of the digestive secretions, and in it we notice an excellent account of the chemical processes of digestion, directions for the detection of poisons in vomit, and a section on the theory of diabetes, in which the views of various observers are detailed, though those of Dr. Pavy receive the greatest amount of support. The last chapter, on morbid products, has probably cost a great deal of labour, and contains a mass of material that is not easily to be found brought together in any systematic manner in any other work. The origin and composition of urinary calculi of course take up a good deal of space, and Dr. Ralfe again puts forward his views on the solution of calculi in the bladder, and supports them by quoting several cases in abstract. The sections on lardaceous, and on mucoid and colloid degeneration, contain much that is new to our text-books. Finally, we may observe that the book will not only be useful to the student, but instructive also to his teacher, and that observers who are desirous of undertaking original inquiries will find that the book abounds in hints for lines of research.

ARTICLE 1638.

Surgical Cases and Essays. By RUSHTON PARKER, B.S., F.R.C.S., Professor of Surgery in University College, Liverpool. Liverpool: Adam Holden. 1883.

THE most important section of this volume is that which deals with the subject of abdominal hernia. Mr. Parker has done good service in insisting on the necessity for an intelligent treatment of cases after the strangulation has been cured or removed, though he has perhaps a little weakened his case by the use of language which, taken literally, must be admitted to go a little too far. This, however, is the only fault we have to find with a really admirable essay. After protesting that the symptoms of complete intestinal obstruction have been 'specified' and brought to be regarded as the symptoms of hernia, Mr. Parker proceeds to say that 'a generalisation of the symptoms in all kinds and every degree of intestinal obstruction, mechanical and functional, very much facilitates both treatment and diagnosis.' The vomiting and griping which are among the most distressing symptoms of complete blocking of the intestinal canal, whether from hernia or from other causes, are, he contends, in great part maintained, if not set up, by food, by enemata, and by rectal examinations. There is a 'functional laming' of the intestine which persists after the reduction of a hernia, and which forms the most important element in other kinds of obstruction, and the great aim of the essay appears to be to direct attention to the proper treatment of this functional laming; this may be summed up in the phrase 'functional rest,' and to attain this, fasting is the first essential, and opium is the great auxiliary. Though we do not remember to have before

met with so full and distinct an enunciation of it in print, this doctrine is not new, and there is at least one eminent clinical teacher in London who is fond of repeating the paradoxical aphorism, 'In intestinal obstruction opium is the best purgative.' But opium alone will not suffice to bring about the necessary rest and cessation of peristalsis; food must also be withdrawn, and enemata, whether purgative or alimentary, must be interdicted. It is here, we think, that Mr. Parker has been betrayed into a certain exaggeration; rigid withdrawal of all nourishment can only apply to a certain class of cases, to those, namely, where the laming is only, or at least in great part, functional, and not structural, and is evidently inapplicable in its entirety to cases of chronic intestinal disease such as cancer. But a good rule of practice is laid down in the preface; 'any pains in the belly may require opium, and most, in addition, the restriction of food.'

The author passes on to discuss omental hernia, and somewhat severely criticises Mr. Holmes, because he has expressed the belief that strangulation of omentum can produce symptoms identical in kind with those of strangulated bowel. Mr. Parker, of course, admits that the symptoms do occur, but denies that they are produced by strangulation of omentum; he contends that they are due to obstruction of the intestine by the dragging of the irreducible omentum, or to inflammation of the omental hernia and peritonitis. If the ligature of omentum by the surgeon produce no symptom of strangulation, how comes it that the comparatively slack constriction of a hernial neck can do so? The only answer which can be made to this argument is, that the comparatively slack constriction causes irritation of the nerves and of the peritoneum, whereas a tight ligature applied by the surgeon prevents, by cutting off the offending part from all connection with the nervous centres, the reflex disturbances which may be set up where the constriction is not sufficiently tight to destroy nervous conductivity. When Mr. Parker proceeds to argue at some length that the collapse following on perforation of the bowel is not due to the mere perforation, but to the consequent fecal extravasation, he seems to set up an adversary in order to have the pleasure of knocking him down; but he makes an important point when he observes, with reference to gangrene after relief of strangulation, 'intra-peritoneal effusion is, if copious, always promptly followed by collapse; while, if slight and gradual, the collapse may be so late and so gradual as to be merged in the signs of "death by exhaustion."'

In a concluding chapter, Mr. Parker strongly advocates the combination of herniotomy for strangulation with firm occlusion of the sac by ligature of the peritoneal lining; he strips up 'the peritoneal layer until the inside of the abdominal wall is reached,' and applies a ligature as high up as possible. Mr. Parker speaks with great confidence of this method, but his cases appear to be as yet too few to be quite convincing to surgeons in general; of this fact nobody probably is better aware than Mr. Parker himself.

ARTICLE 1639.

On the Cause and Treatment of Phthisis. By H. ARMSTRONG RAWLINS, M.R.C.P., &c.

It is seldom now-a-days that an author has the courage and assurance to put forward such a work

as the above, which, in addition to being entirely opposed to all that is known of physiology and pathology, contains some curious reasoning. We are informed that the descent of the diaphragm creates a vacuum at each inspiration, which in healthy people is filled in by the expansion of the lungs by blood and air; but that, owing to the consumptive possessing less than the proper amount of the nutritive fluid, he fails to accomplish this, and a vacuum must remain. 'In the endeavour to fill this vacuum—an impossible task—blood (the nuclei of tubercles) is thrown out. The blood in this case is divided inside the vessels into *separate sedentary portions*, like quicksilver in a barometer, when a portion of it is lost. These separate quantities are exposed to the action of the atmosphere, from its passing through the tissues as thoroughly as if the blood were outside the vessel, and therefore there is nothing to prevent its coagulating.'

The author is nearer the mark when he attributes the flattening of the walls and retraction of the intercostal spaces to atmospheric pressure, though he apparently omits all reference to adhesions of the pleura, so common in phthisis; and he then passes on to examine the influence of the vacuum on the circulation and skin, and finds that in both systems elasticity is entirely lost and must be supplied by artificial means. He asks, 'What is the difference between the drowning man and the consumptive one? The one cannot get the air to the blood, the other cannot get the blood to the air.' And he informs us that bandaging the extremities will assist the latter as much as the life-belt would the former. This is the keystone of Dr. Rawlins' treatment. He bandages the extremities, and he places the patient in a double air-proof dress and inflates the space between the two layers, and thus brings pressure to bear on the skin and superficial veins, and the result is marvellous; for, on lying down, the circulation and respiration are greatly quickened and the whole amount of blood saturated with oxygen, a condition in which 'our internal living assailants,' to wit, the bacteria, bacilli, and micrococci, and other organisms, cannot exist. The other means which Dr. Rawlins advocates is a large supply of liquid nourishment to fill the veins.

The above extracts will give some idea of the author's views, which, if they have no other recommendation, show a certain amount of ingenuity; but the whole pamphlet abounds in such extraordinary statements, and shows such entire disregard of modern knowledge, that one imagines that it is intended rather to amuse than to instruct its readers.

C. THEODORE WILLIAMS, M.D.

ARTICLE 1640.

Treatment of Empyema. By A. T. CABOT, A.M., M.D. Cambridge, U.S.A. 1883.

IN this pamphlet, Dr. Cabot discusses the best methods of operative treatment, and deals with the question of aiding the compressed lung to expand after the removal of the fluid. He argues that, as there are two avenues for the returning air to reach the interior of the chest, the bronchus and the puncture-opening, the object should be to partially obstruct the latter and throw all the air-pressure on the former, and thus bring about the dilatation of the lung through the efforts of inspiration.

He advises the following treatment of the pleural opening. 'The tubes, of which I generally use two,

side by side, are arranged so that they barely project within the chest-wall, and the outer ends, after being securely fastened with safety-pins and adhesive plaster, are cut off as close to the skin as possible. A handful of loose gauze wrung out in an antiseptic solution is placed around and over them, and over this a piece of mackintosh large enough to project in every direction beyond the gauze beneath it. Over this again are placed many (twelve to fifteen) layers of dry gauze, and lastly, a sheet of cotton-batting to provide for equal pressure. This whole dressing is held in place by a gauze or flannel bandaging, some of the turns of which should go over the shoulder to prevent its slipping down.

'The loose gauze next the tube catches and holds the discharge, which in a favourable case is reduced to almost nothing after the third or fourth dressing, and soon becomes serous.'

Dr. Cabot claims for this dressing, with its covering of mackintosh, impervious to the air, the action of a valve through which the air driven out of the chest by cough escapes, but which opposes its re-entry.

Dr. Cabot gives a table of fourteen cases of empyema treated in this way, of whom three died, two of phthisis, and eleven recovered. In all the successful cases the effusion was of recent origin, except one of three months' standing; and in all, the lungs are stated to have expanded fairly, the tubes being removed, on an average, on the twenty-fourth day after insertion.

The author objects to the use of injections generally, and especially so to that of carbolic acid, which he finds to give rise to poisoning; but he advocates a solution of liquor sodæ chlorinatæ (one part to twelve or fifteen of water) if the pleural discharge be fetid.

For the point of puncture, he selects the seventh or eighth intercostal space in front of the latissimus dorsi muscle, and for exploration he uses a special form of grooved needle, which prevents the skin from closing too rapidly, and, moreover, acts as a director for the use of the knife, if desirable.

The results of Dr. Cabot's operations seem encouraging, but it should be borne in mind that more than half his successful cases were children, who are notoriously favourable examples, and in the others, with one exception, the effusion was of short standing.

Doubtless the pressure which the author kept up by means of the dressing and bandages tended to help the partial collapse of the chest-wall, and thus to reduce the pleural cavity.

C. THEODORE WILLIAMS, M.D.

ARTICLE 1641.

Elements of Surgical Pathology. By AUGUSTUS J. PEPPER, M.S., M.B.Lond., F.R.C.S.Eng., Fellow of University College, London; Surgeon to St. Mary's Hospital, and Teacher of Practical and Operative Surgery at the Medical School. London: Cassell & Co. 1883.

THERE is always room on the student's shelves for a good manual, although elementary works are very abundant in these days; therefore the student will be a gainer by the addition of Mr. Pepper's *Elements* to his library. It is written well up to the standard of the latest pathological knowledge, whilst all intricate unsettled questions are excluded, and the

strictly surgical scope of the work is never forgotten by the author. Great prominence is given to diseases of the bones and joints, and to the pathology of the pelvic viscera; and special chapters are devoted to lupus, strangulated hernia, ulcers of the anus and rectum, spina bifida, and other conditions needing surgical art, and therefore demanding scientific knowledge on the part of the surgeon. The chapters on tumours are written in a clear and readable style, and Mr. Pepper has done well in not allowing this subject too great prominence. In his descriptions of some of the more malignant new growths, he has been careful to lead up to the actual morbid appearances through some reference to the natural tissues which are counterfeited by such growths. Histology is better taught at the metropolitan schools of medicine than it was ten years ago, but 'no pathology before histology' is a principle that every student should be made to understand; and it is in teaching the characters of sarcoma and carcinoma that this principle must never be forgotten. The illustrations of microscopic appearances are somewhat unequal, but, for the most part, very good; the woodcuts representing diseases of bones and joints, and certain soft structures are of a high order of excellence and reflect great credit on the artist, M. Berjeau.

ALEAN DORAN.

ARTICLE 1642.

A Synoptical Guide to the Study of Obstetrics. By ROBERT BARNES, M.D., Obstetric Physician and Lecturer in Obstetrics to St. George's Hospital. London: Smith, Elder, & Co. 1883.

THE author, in his preface, tells us that this synopsis will prove valuable to the student who cannot attend systematic lectures. We can equally affirm that it will also prove valuable to him who has attended a course of lectures upon obstetrics, but who, at the time, has failed utterly to appreciate the importance of the subject as regards its influence upon his success in practice. To such, this exhaustive, yet concise synopsis will indeed serve as a map to show the extent and subdivisions of the territory through which he has to travel. It will tell the student what to seek in the text-book he may select. It will further serve him as an *aide m'emoire*, to revise and refresh his knowledge when preparing for class or other examinations. He may at a glance discover the points upon which his knowledge is defective. By interleaving this synopsis, he may increase its value by the addition of notes taken in class and in reading, and by his own reflections.

The name upon the title-page is a sufficient guarantee that the work is clearly and concisely written. It travels over the whole realm of obstetrics, including the anatomy and physiology, as well as the pathology of pregnancy. This latter the author regards merely as physiology working under difficulties. The section on the Diseases of Pregnancy, we venture to think, will prove of great interest to the practitioner, and will assist him materially in solving some of the difficult problems constantly presented to his notice in the daily routine of practice, such as convulsions and abortion.

The concluding section upon 'The Operations,' with the indications for, and mode of conducting them, forms an appropriate termination to a work, which is distinguished throughout by its thoroughness and comprehensive character.

ARTHUR W. EDIS, M.D.

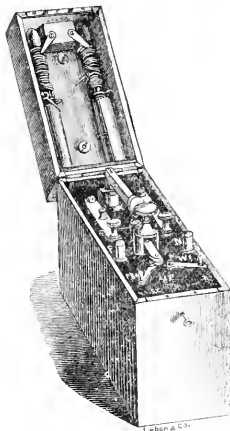
NEW INVENTIONS.

ARTICLE 1643.

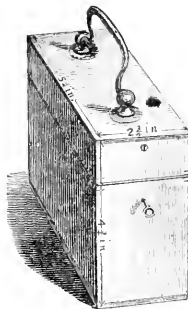
IMPROVED PORTABLE GALVANIC APPARATUS.

Devised by MR. BUTLER-SMYTHE.

THIS battery is a modification of 'Grunt's.' It has been designed for use in the treatment of diseases of women, and is of such a convenient size that it can be carried in the hand, or in Greenhalgh's and



Barnes' obstetric bags. It measures $5\frac{1}{4}$ inches in length, $2\frac{3}{4}$ inches in width, and $1\frac{1}{4}$ inches in height, and possesses the following advantages. It is really portable, very powerful, not liable to get out of order, and always available for use. The cell of



the battery is almost watertight and no corrosive liquid can escape unless the apparatus is turned upside down. The electrodes and accessories, when not in use, are fixed in the lid and thus add to the portability of the instrument. The batteries have been made by Messrs. S. Maw, Son, & Thompson, Aldersgate Street, E.C.

MISCELLANY

DYNAMITE PILLS.—Messrs. Landowsky and Ballet have published a curious observation of spasmodic contraction with paralysis of the lower limbs, which had lasted for two years and a half in a hysterical girl of 26 years of age. On October 7 two pills were given to her, described as fulminating pills, which she was recommended to take with the greatest care, dividing each pill in half. On the following day the patient announced that she had tried to poison herself, and that she had taken all four pills at once, that they had produced a terrible effect upon her, but that her disease was suddenly and completely cured. The pills were composed of bread crumbs only.

BATHERS' CRAMP.—In the *Brit. Med. Jour.*, July 1883, p. 82, attention is drawn to the number of bathing fatalities due to cramp. The nature and causes of this dangerous affection are not generally understood, but experience has given some data to recognise certain conditions favourable to the production of cramp. These are: a peculiar individual susceptibility or idiosyncrasy, the shock of cold applied to the general surface of the body, prolonged muscular exertion, and forcible and sudden muscular exertion, especially in the direction of the extension of the extremities. The great folly of entering the water while the body is heated by violent muscular exercise is particularly insisted upon. In the *Lancet*, Sept. 1883, p. 408, it is shown that in many fatal cases, classed under Swimmers' Cramp, death is often due to failure of the heart, or to rupture of cerebral vessels.

A SCHOOL of medicine for women was opened on the 2nd instant, in Kingston, Canada, when Dr. Lowell addressed the students. Three scholarships have been founded, and the prospects of the school as a separate institution are good. A guarantee fund of 7,000 dollars has been raised.

THE INFLUENCE OF PEROXIDE OF HYDROGEN ON ANIMAL TISSUES.—Dr. Bernhard Solger, of Halle (*Centralbl. für die Med. Wiss.*, März 17), independently of Dr. Unna, has arrived at the same results with reference to peroxide of hydrogen as a bleaching and macerating agent in researches on animal structures. 1. *Bleaching Power.*—Dr. Solger employs a 3 per cent. solution. Dark human hair becomes colourless after ten days' maceration. This property has been known to, and employed by, hairdressers for a long time. Dr. Solger has by the same agent in a few days rendered brown, the black star-shaped pigmentary bodies of the frog's skin, and the pigmentary epithelium of the retina in a six months' human fetus. These structures were submitted to the action of the peroxide in their fresh state; its influence was also not slight upon tissues that had been preserved in alcohol or Müller's solution. The tegumentary pigment of a cephalopod (eledon, in alcohol) resisted its influence, as did also the carbonaceous matter of the human bronchial glands. The action of the peroxide on fat-cells blackened by osmium is interesting, as it shows these to be not solid bodies, but thick walled, strongly refractive, hollow globules, having round or slightly serrated vacuoles within them. It was remarkable that the simultaneous employment of osmic acid and peroxide of hydrogen on animal tissues rendered visible medullary nerve-fibres which the single use of either did not affect. Sections of spinal cord that had lain for two months in Müller's fluid were within half an hour changed to a bright green colour, a change effected almost instantaneously, which ordinarily takes place slowly only after long immersion in alcohol. 2. *As a Macerating Agent.*—Horny tissues appear to be the most readily acted upon. The spear-shaped laminae of the horny exterior of the human hair will be seen to be softened and detached in about eight or ten days' maceration. The brown or sack coloured plates of chitine in like manner become bleached and softened. Thus the peroxide is

specially useful in examining the structures of invertebrata. Dr. Solger appends to his article a note to the effect that, on looking up the literature of the subject, he finds that the same action of peroxide of hydrogen was mentioned in their treatise by Pouchet and Tournoux in 1878. They employed, Dr. Solger adds, a mixture of the peroxide and glycerine.

BROMIDE OF ARSENIC IN DIABETES MELLITUS.—Soon after the announcement by Dr. Clemens of the benefit to be derived from bromide of arsenic in diabetes, the remedy was employed in this disease by Professor Korányi, in Budapest. The medicine was administered to a man 22 years old, who, when entering the hospital, was so weak that he could with difficulty ascend the steps to the clinic at the time of his admission, Feb. 15, 1882. Through the administration of the bromide of arsenic, this patient was so greatly benefited that on May 9 he was discharged from the hospital, and was at once enrolled for military duty. During the time of treatment his weight increased from 48.5 kilogrammes to 56.6 kilogrammes, and the loss of sugar in the urine, which in the first few days varied in amount from 170 to 411 grammes in twenty-four hours, was entirely suspended. This surprising result continued after the patient was given a mixed amylaceous diet, and the arsenic was withheld. Before the arsenic was prescribed at all, the patient was for some days confined to a strict diet, by which means the amount of sugar was sensibly diminished from 298 grammes by mixed diet to 113.52 grammes in twenty-four hours. The diet consisted of breakfast of bitter Russian tea, two to three soft-cooked eggs, or bacon; dinner of soup, cooked beef, roast meats, with green vegetables. During the whole day one water-biscuit was allowed. The first cycle of treatment with bromide of arsenic and animal food lasted eleven days, in which the dose of the drug was increased from three to six drops. The result must be acknowledged a most brilliant one, for on the eleventh day (March 21) sugar could hardly be detected in the urine, and steadily diminished day by day. During the treatment the average amount of sugar excreted was 55.35 grammes in twenty-four hours, that is, half the amount which was previously lost during the time in which the patient was treated by means of an animal diet, or one-fifth the original quantity lost daily by the patient. The diet of animal food was now resumed without the medicine, when traces of sugar could be detected in the urine at times, while at other times none could be detected. On the sixth day the patient was given rice in addition to his previous diet, when sugar appeared to the amount of 1 per cent. in the urine, and the treatment by the arsenical bromide was at once resumed. From this time the medicine was continued in the dose of five drops daily for twenty-seven days, with a modified diet, containing, in addition to meat, 150 grammes rice and two biscuits daily. During this period sugar was almost always absent from the urine, never being found in a greater amount than 0.1 to 0.3 per cent. After this, for a period of some days, the diet was made to include a variety of amylaceous substances, and the medicine entirely withheld, and the only variation was that on two days sugar appeared to the extent of 24 and 29 grammes respectively, in the urine. During the remainder of the time the urine was absolutely free from sugar. The translator of the above, which is published in the *Boston Medical and Surgical Journal*, Vol. cix., No. 12, states that he has employed the same remedy as is here mentioned, a compound of bromine with arsenious acid, the nature of which is not yet satisfactorily determined, in the treatment of a case of diabetes mellitus of long standing, in which there has been a loss of 33 per cent. of the original weight, ravenous appetite, tormenting thirst, and an excretion of urine amounting to many quarts daily. The amount of sugar in the urine amounted to 35.71 grammes in the fluid ounce. The result of treatment by means of this new remedy is awaited with much interest.

The London Medical Record.

ARTICLE 1644.

DE RANSE ON VERBAL BLINDNESS.

DR. DE RANSE (*Gaz. Méd. de Paris*, June 16, 1883) has recorded notes of an uncomplicated case of this affection. It was that of a man, aged 35, who had had an attack of aphasia and right hemiplegia, but had recovered language as well as the use of the right side; the chief symptoms remaining being that he could not read what he had written himself, or anything else; besides which, there were right lateral hemipia, and loss of memory for certain substantives and proper names, more especially the names of the streets of Paris. He could write long letters without many faults in spelling; but if he wanted to read what he had written, he was obliged to re-write, one by one, every letter of the word he wanted to decipher. The notions furnished by the movements of the hand in writing therefore seconded and controlled the deficient notions furnished by sight. Reading printed matter was even more difficult than written characters, because the patient was less trained to reproduce the former. Dr. Charcot, under whose care the patient was, made him have regular lessons, during which he closed his eyes and was made to write in the empty space certain words, passive movements to that effect being made with his right hand; he could then say the words at once. With this he made rapid progress: for while in the beginning he took 1 minute and 43 seconds to read a line, he did after sixteen days' practice the same in only 27 seconds. It was found that there were certain letters which he knew badly or not at all when they were by themselves, but he wrote them easily when they formed part of a word. He also read a word which he knew much more quickly than one he did not know. Sums he could do very well, provided they were not too complicated.

Cases of this kind have occasionally been noticed previous to the era of cerebral localisation. Gendrin and Trousseau have mentioned some, but it was Kussmaul, who, in his important work on aphasia, recognised this condition as a special variety of that disease. Since then a Russian lady doctor, Mlle. Skwartzoff, has written a thesis, in which five new cases are described, and Charcot has seen three in which a *post mortem* examination was made. The lesion was found in the lower parietal lobule, the angular gyrus (*pli courbe* of the French anatomists). At first, when there is right hemiplegia and aphasia, there is blocking of the Sylvian artery by embolism, thrombosis, &c. After a time circulation is re-established, either directly or collaterally, in certain portions of the territory of that artery; in the third frontal convolution, leading to recovery of language; in the ascending frontal and parietal, leading to recovery of power in the right side; but the branch which supplies the angular gyrus remains blocked, no collateral circulation is established, and verbal blindness is the result which remains. In other cases there is at once this word-blindness, without hemiplegia or aphasia; it is then only that branch of the middle cerebral artery which proceeds to the

angular gyrus which is affected. This same region is also the seat of cerebral hemipia, and from the concurrence of these two symptoms Charcot has founded an ingenious hypothesis on the pathogeny of verbal blindness. Hemipia and temporary aphasia, with tingling in the hand, &c., constitute the principal symptoms of ophthalmic hemicrania, which, according to Latham, is due to spasm of branches of the Sylvian artery. It is possible that, when this spasm is frequently repeated, it may in the long run lead to organic changes, such as arteritis, atheroma, thrombosis, and that the functional disturbance thus becomes permanent.

JULIUS ALTHAUS, M.D.

ARTICLE 1645.

MASSALONGO ON EPIDEMIC PNEUMONIA.

AN epidemic of pneumonia is described by Dr. R. Massalongo in the *Gazz. Med. Ital. Prov. Venet.*, July 14, 21, 28, August 4, 11, 18, 1853.

In March and April of this year an epidemic of pneumonia, remarkable for its severity and the peculiarities which the disease presented, occurred in the district of Tregnago (Verona) a very healthy locality, free from malaria and endemic disease. About 100 persons were attacked, of all ages and ranks: of adults, men suffered more than women in the proportion of four to one. The number of children attacked was considerable, the pneumonia being always of the croupal form, and not catarrhal. The first cases were numerous and severe, and occurred in a few houses near which was a stagnant pond of dirty water, where the clothes of the community were washed. Often many cases (two to five) occurred in a family; the disease spread from house to house, isolated cases only occurring where there had been personal contact with the sick. The disease could be attributed to no climatic influence, nor was cold the cause; many bedridden persons were affected, children affected with chronic disease, several women in bed after confinement, &c. The premonitory symptoms were well marked—general malaise, headache, epistaxis, loss of appetite, lasting from two to four days. None of the persons attacked had ever had pneumonia before. Shivers ushering in the fever were intense and repeated (not a single rigor). Patients when first seen were generally in bed, supine, with red face, staring eyes, mouth half open, heavy, stupid, wandering at night. The symptoms resembling those of typhus fever, but no rash was ever seen. The temperature was not very high, 39°·3 to 40°·7 Cent. (102°·75 to 105°·35 Fahr.), irregular, like that of typhoid, highest in the stage of resolution rather than in that of engorgement. Quinine caused a slight fall, salicylate of soda a greater. There were suspicious delirium, obtuseness of intellect, deafness, delirium not in correspondence with the height of the temperature, often first appearing in the stage of hepatisation with lower temperature. In two cases the first symptoms were those of acute cerebral congestion, threatening apoplexy. Several cases occurred which ran their whole course with great elevation of temperature, with no symptoms of pneumonia. 'Stitch' in the side appeared on the second and third day of the fever, often accompanied by pleuritic rub. The first lung-symptoms were rough breathing, with here and there sibilant and rhonchi, shortness of breath, and oppression of the chest;

then abundant crepitant râles, with bloody sputa. This stage lasted two or three days, the lung then becoming rapidly hepatised, the temperature falling; the tongue, which hitherto had been pointed and red, becoming large, pale, and covered with blackish grey fur, sordes on the gums and teeth: there was low delirium. The gravity of these symptoms was usually in inverse ratio to the extension of the pneumonia. Constipation was the rule at first, followed by slight painless diarrhoea; no meteorism, no ileo-cæcal gurgling, or pain on pressure. The intestinal catarrh seemed limited to the rectum; there were tenesmus and burning; the anus was swollen and red, often ulcerated. Tumour of the spleen was noticed in all cases, and lasted well into convalescence. The liver was also enlarged. The upper lobes of the lungs were first attacked, the pneumonia being generally double, both lungs being simultaneously invaded. Five members of one family were attacked, the right lung only being affected in all. Pleuritic rub was frequently heard, but in four cases only was there any effusion into the pleura. The stage of hepatisation lasted seven to nine days; it was never less than five, and in six cases reached fifteen. Resolution was slow and difficult; there were no critical phenomena. The urine was scanty, high-coloured, with only a trace of chlorides. Albumen was nearly always present; no biliary pigments. Labial herpes was noticed in four cases only, no herpes elsewhere. Convalescence was slow, with troublesome cough, mind dull, tongue blackish, pulse weak and intermittent. The greatest number of deaths occurred after resolution had commenced; several deaths occurred from syncope during convalescence. Acute inflammation of one or more joints, with great swelling and exudation, and recovering slowly, was a frequent complication.

Three tubercular patients were attacked with croupous pneumonia. Meningitis complicated several cases. In convalescence the muscular weakness was extraordinary, and hardly in relation with the duration or the severity of this disease. Paralysis or paresis of certain groups of muscles was frequently seen; hemiplegia or paraplegia, one arm or one leg only being affected: these cases rapidly recovered, and in course and character resembled diphtheritic paralysis. In one case the velum palati and tongue were paralysed; nine years previously this patient had had diphtheria, with paralysis of the same parts. Relapses were rare, only two cases being mentioned. The sputa, examined by the Weiger-Koch process in various stages of the disease, were found to contain numerous micro-organisms, with the character described by Klebs; they were most abundant in the sputa of advanced resolution.

The epidemic was remarkable for the large number of persons attacked in a short period and in a limited space, without regard to age or social condition; for the length and peculiarity of the prodromal symptoms; for the frequency of delirium, often violent; for the want of correspondence between the fever and the local or general symptoms; for the hæmorrhagic sputa; for the gravity of the general phenomena, analogous to those of infective disease; for the undoubted contagion; for the frequency of meningeal, articular, and renal complications; for the constant tumour of the spleen; for the length of the stage of resolution; for the exceptional length of convalescence; for the frequency in this stage of paretic or paralytic phenomena; for the number of deaths, for the sudden

deaths in convalescence, and for the rapid putrefaction of the body after death.

G. D'ARCY ADAMS, M.D.

ARTICLE 1646.

MASTIN ON CHYLOCELE OF THE TUNICA VAGINALIS.

DR. W. M. MASTIN, of Mobile, in an original contribution to the *Annals of Anatomy and Surgery*, May 1883, presents a summary of four previously recorded cases of chylocele, and adds another observed by himself. The subject of this case was a man, aged 22 years, who, about four years before he came under the author's notice, observed that both testes were enlarged, and the seats of occasional erratic and dull pains. This enlargement increased slowly and gradually until the beginning of the last nine months, when, after an attack of gonorrhœa, it rapidly advanced. When the patient was first seen by Dr. Mastin, careful examination revealed a gleet discharge from the urethra, accompanied by a contracted meatus and a decided increase in the size of both testicles. The right tumour was equal in bulk to a man's fist, pyriform in shape, opaque as tested by transmitted light, somewhat elastic, with slight fluctuation, and at its posterior and upper parts, in the region of the spermatic cord, filled with irregular, tortuous, worm-like masses, resembling the venous enlargement of varicocele. The tumour on the left side of the scrotum was much smaller and firmer, and was not transparent, but presented similar corded and tortuous masses. The swelling on the right side continued to increase slowly in size during the next seven weeks, when it was punctured, and emptied of three fluid ounces of milky fluid, the elements of which, on chemical and microscopical examination, were found to be plainly those of chyle. After removal of this fluid, examination of the right testis proved that gland to be of normal size; but, occupying its upper and posterior part, where joined by the cord, and along the course of the cord, were the same masses above referred to. Three months later, the fluid during the interval having re-accumulated, a small trocar with cannula was plunged into the lower portion of the front of the tumour, and one ounce and a half of similar chylous fluid withdrawn. The instrument having been carried upwards for about two inches and a half, and made to re-puncture the sac from within outwards, the trocar was now removed, leaving the cannula transfixing the sac. The cannula having been replaced by a grooved director, the entire thickness of the intervening bridge of tissue was rapidly divided by a single stroke of the bistoury, and the cavity of the sac laid open. The tunica vaginalis seemed to be quite normal. The testis also was healthy, but, on its upper and front surface, near its junction with the cord, was observed a smooth and rounded swelling, similar in bulk and contour to the head of the epididymis. Projecting from this was an irregular prominence or nodule, resembling the large button-like granulation often observed at the orifice of a long-standing fistula. This nodule was moist, although no opening upon it could be discerned. As, however, it was assumed to be the source of the leakage, it was transfixed through the middle of its base by a needle armed with a double carbolised catgut ligature; and, after each ligature had been tied, was cut away. On the cut

surface of the stump was recognised a large patulous orifice of a vessel, from which oozed a milky fluid. The lumen of the divided vessel was recognised also in the removed nodule. The tunica vaginalis was then closed by a continuous carbolised animal suture, and the edges of the skin-wound were brought together by needles. The patient made a good recovery, and, five months after the date of operation, the author re-examined the patient and reported a permanent cure. The right testicle was then natural, and there were no signs of re-filling of the sac. Dr. Tyson, of Philadelphia, to whom the removed nodule was submitted for microscopical examination, reported that it presented a cavernous structure, some of the spaces being filled with blood, whilst others, it is believed, were lymphatic vessels.

Dr. Mastin, referring to the lesions in chylothorax and chylous peritoneal dropsy, states that it would seem justifiable to make the assertion that, in this, as in the leakage of chyle into the pleural and peritoneal cavities, the cause of chylocele of the tunica vaginalis resides in a rupture of a lymphatic, and consequent outpouring of fluid into the sac. The cause of this rupture, however, is not so apparent, as so few cases of chylocele have been recorded, and these do not offer any particular clue towards the elucidation of this point. Gonorrhœa, it is thought, plays an important part in the causation of the affection, and Dr. Mastin believes that a direct connection can be traced between the urethral discharge and the chylous effusion. From the gonorrhœa followed, probably, a specific lymphangitis which produced thickening and obstruction, or, perhaps, complete obliteration of the afferent lymphatic branch, thus interrupting the lymph-current through its channel, and resulting in its dilatation and final rupture. As to the method of treatment to be adopted, Dr. Mastin speaks unhesitatingly in favour of free incision into the sac, and ligation of the ruptured and leaking duct. This he prefers for the following reasons: firstly, the certainty of the procedure, since by it every portion of the cavity is fully exposed to view, and the oozing point can be easily and properly secured; secondly, the uncertainty of injection, for in the only case in which it was employed, injections of tincture of iodine were needed to effect a cure; thirdly, the possible danger that might attend injection.

W. JOHNSON SMITH.

ARTICLE 1647.

TCHERNOFF ON ABSORPTION OF FAT IN ADULTS AND CHILDREN IN FEVER AND APYREXIA.

FOLLOWING a suggestion by Professor V. A. Manassein, Dr. V. E. Tchernoff (*St. Petersburg Inaugural Dissertation*, 1883) investigated the assimilation of fat by adult subjects and children suffering from febrile diseases. The observations were conducted on twenty-two patients, nineteen of them being between 7 and 42 years of age, the remaining three under a year. Seven of the patients suffered from enteric fever, two from recurrent fever, four from typhus, two from erysipelas, one from malarial fever, two from croupous pneumonia, and one from varioloid. Of the infants, one had fever from vaccination,

one suffered from scarlatina, and one from catarrhal pneumonia. The patients (those between 7 and 42 years of age) received milk, in which the proportion of fat had been previously ascertained, and bread; their fæces, made from the beginning of an experiment, were collected and analysed. The author sums up his results as follows.

1. A healthy subject assimilates about 95 to 94 or 95 per cent. of fat of the food given, provided it be present in a form suitable for the action of bile and pancreatic juice.

2. A subject suffering from a febrile disease, as a rule, assimilates lesser quantities of fat than the same subject in a healthy state, the difference being on an average 7·2 per cent.

3. The single deviation from this rule is given in enteric fever. When suffering from the latter, the patient absorbs more of fat than when he is convalescent, or quite well. This is especially true in regard to severe forms of typhoid.

According to the author, the fact of fat being better assimilated by typhoid patients finds its explanation in the presence of great numbers of leucocytes in the intestines in cases of enteric fever. As a recent work of Professor F. N. Zawarykin shows, leucocytes are 'true absorbers and distributors of fat.'

4. The quantity of absorbed fat, and the percentage proportion of fat in fæces, are influenced by the quantity of fat in the food daily taken, by the individuality of the patient examined, by his general state at the time of examination, and, possibly, by the admixture of carbohydrates and albuminoid matters.

5. There exists no difference between adults and children in regard to all the propositions stated above.

6. Febrile patients, though their faculty of the absorption of fat is diminished, still assimilate fat in considerable quantities (from 80 to 90 per cent.). Therefore, any fears entertained against the administration of fat to febrile patients are groundless. Any avoidance of fat in febrile diet would be unjustified: fat is as necessary for the diseased as it is for the healthy.

V. IDELSON, M.D.

ARTICLE 1648.

TAMBURINI ON INSANITY OF DOUBT WITH FILTH-DREAD.

A TYPICAL case of this disorder has afforded Professor Tamburini occasion for an exhaustive review (*Riv. Sper. di Fren.*, Fasc. i. ii. iii., 1883) of the subject and the literature of it. It has been more especially studied by the French and German authors, and has received various names at their hands. The essential characteristics of the mental disturbance are ever-recurring and tormenting doubts about even the most trivial things, then a morbid dread, and finally insane ideas leading to homicide, suicide, or violence. The ground work of the whole is regarded as impaired volition. The intellect is practically unimpaired, and recognises the absurdity of the ideas, which nevertheless it cannot banish from the mind. There is pretty general agreement amongst all authors upon the salient features of the malady. Three stages or periods are marked out. The first stage is one of simple fixed ideas. The

anomaly in ideation is confined to the intellectual operations without showing itself in action. The derangement is exhibited by doubts and questions regarding the commonest circumstances. The patient is always asking the 'why' of things; or is involved in metaphysical problems, or in arithmetical calculations; and as soon as the question has been solved, it is gone over again in the belief that a mistake has been made. At the same time, there are functional exaggeration of the spontaneous attention and diminution of voluntary attention. Any idea that enters the mind occupies it, and cannot be driven out by any effort the will can make. In the second stage the fixed ideas are marked by emotion, and this emotion is fear. There is a morbid dread. Sometimes it is the fear of dirt (*mysophobia*, Hammond); the patient cannot bear to touch anything, and washes his hands some hundreds of times a day. Sometimes it is the fear of moving from his seat or of getting out of bed (*atremia*, Nefel); sometimes the fear of leaving his room or his house (*claustrophobia*); or, on the contrary, it may be the fear of remaining in a closed place (*claustrophobia*), or the fear of crossing a street or square (*agoraphobia*, &c. In the third stage, the ideas become impulsive. We have here the form of insanity fraught with greatest danger to society. The patient can reason correctly; he perceives and deplors his weakness. He may seem to the outer world to be perfectly sane, but his lack of self-control is sure sooner or later to lead him into mischief, unless he receive the shelter of an asylum. Homicides and suicides are furnished in large proportion by men of this type. The affection is also accompanied by physical symptoms. There are pains in the head, especially in the occiput and in the vertex; muscular and articular pains and neuralgic throughout the body. Motility is also somewhat disordered. There are tremors and various epileptoid phenomena, or even true epileptic seizures. Vaso-motor derangement gives rise to transient flushings, shiverings, vertigo, noises in the ears, &c. There are various functional disturbances of the respiratory and digestive systems. The sexual functions usually are more or less out of order. Insomnia is apt to be present, or disturbed sleep and bad dreams. As regards prognosis, patients improve when sent to an asylum; but speedily relapse on returning home, and there is hardly such a thing as a complete cure. There is no tendency, however, to dementia. Touching causation, the most striking factor is hereditary predisposition. The other causes are all of a debilitating nature, and are grouped in four classes: (a) those that directly alter or exhaust the brain, such as intellectual fatigue, fright, and injuries to the head; (b) those that act indirectly by exhausting the energy of the nervous system in general—sexual abuses, for example, and excessive fatigue; (c) those that act through the blood, impairing the nutrition of the nerve-centres; (d) those that act in a reflex manner, such as affections of the uterus, &c. All these causes have an essentially neurasthenic action. There is, besides, a group of physiological causes embracing the various phases of sexual life: their action is probably reflex. The affection, in accordance with the greater frequency of the causes, is more frequent in women than in men. It occurs also more in young people and in the cultured classes.

WILLIAM R. HUGGARD, M.D.

ARTICLE 1649.

BALLET ON SOME AFFECTIONS DEPENDENT ON THE CENTRAL NERVOUS SYSTEM OBSERVED IN THE SUBJECTS OF EXOPHTHALMIC GOÏTRE.

IN the *Revue de Médecine* for April, M. Ballet, after pointing out that attention is usually too exclusively directed to the most prominent symptoms of Graves' disease (viz., the goitre, the exophthalmos, and the cardiac disturbance), directs attention to the fact that cases of this malady are commonly preceded by, accompanied with, or followed by other symptoms indicating a derangement of the central nervous system, and not limited to the cervical sympathetic as is often thought.

He then refers to the psychological manifestations, irritability, depression, tendency to violence, bordering at times upon insanity, noted by Trousseau, and subsequently by others, and asserts that, whether they are dependent upon the common cause of exophthalmic goitre, or upon the troubles of cerebral circulation, consequent on cardiac hyperkinesis, is of little import, since they indicate that the central nervous system is implicated. In support of this, he adduces the following facts. These facts are of interest in two ways: some as being present before the more manifest symptoms of the disease, and so tending to aid in early diagnosis (in this category he places a peculiar tremor made an object of special study by Dr. Marie, and discussed in his thesis of March 1883), and some as helping us to establish the true position of the disease, and throwing a new light on the possible consequences of the circulatory troubles incident to Graves' disease.

The manifestations to which he calls attention are of two classes; 1. *convulsive*—of an epileptic or epileptiform character; and 2. *paralytic*. To these may be added, 3, the phenomena of albuminuria, glycosuria, &c., which he refers to disturbance of bulbar innervation.

1. **EPILEPTIC OR EPILEPTIFORM CONVULSIONS.**—The author refers to the observations of Gildemeester on a case where the long-continued epileptic crises disappeared on the development of Graves' disease, and records five analogous cases.

On analysis, he divides these cases into two categories. In the first, there is a combination of two distinct nosological types, in which there is either a succession of accidents of Graves' disease and of epilepsy, or there is a concurrence in the same patient of the two affections. While in this case the two affections preserve a relative independence, they do not, nevertheless, maintain a perfect autonomy.

He records three cases of this kind, in the first of which epilepsy appeared with all its usual characters, the convulsive accidents gradually fading away as exophthalmic goitre developed itself.

Cases 2 and 3 differ somewhat from this. In them the one disease developed itself some time before the other, which ultimately coexisted with it. In Case 2 the symptoms of Graves' disease were first noted at the end of 1880, and in the course of 1881 epileptic accidents supervened, the two diseases now coexisting. In Case 3 the epilepsy was first developed, and was of some standing when the symptoms of Graves' disease began to show themselves, the two diseases as in Case 2 at present coexisting.

In this latter case, the *trembling* referred to above was present in a marked degree. But, while he regards these as two cases of the concurrence of independent diseases, these diseases are not without a reactionary influence the one on the other. The convulsive attack intensifies the palpitations, and renders the thyroid gland more swollen and painful. The cyanosis is, moreover, more persistent.

In the *second* category, the patient is the subject of one affection—exophthalmic goitre—complicated, however, with convulsive accidents not usually found in that disease. We have then to deal with a simple epiphenomenon, which a rational interpretation would induce one to place under the direct dependence of the disturbed cardiac contractility. The fourth case is one of this kind. The patient, a woman aged 27, had intense headache, violent palpitations, abdominal pains, and convulsive crises recently developed. Then followed facial congestion, thyroid enlargement and pulsation, which phenomena were intermittent, like the cardiac pulsations, marked exophthalmos without visual trouble, but with permanent dilatation of the pupil, scarcely yielding at all to light. There were epileptiform convulsions of the face and limbs, principally on the right side. They were more or less complete without the initial cry, occurring at any moment after the prolonged intermittencies of heart and pulse. There were general abdominal hyperæsthesia, especially at the iliac fossæ, and some gurgling; constipation, and *tâche meningitique*. The urine was slightly albuminous. Treatment with bromide of potassium and digitalis, while regulating the heart and dispersing the convulsive attacks, induced an erythema of the skin over the thyroid gland, and of the lower part of the face, with hyperalgesia of the skin, marked cardiac dilatation (indicated by increased transverse dullness, and by protracted cardiac beats), and hyperæsthesia of the abdomen and thighs.

The fifth case showed the onset of epileptiform symptoms in four recurrent crises, four months after the first appreciable signs of Graves' disease. This was repeated after an interval of twelve months, while the attacks in this case were more or less typical, consisting of loss of consciousness, falling habitually towards the left, biting the tongue, convulsive shudders, especially marked in the upper limbs, and in the later attacks an 'aura.' M. Ballet considers that the absence of every sign of epilepsy prior to the appearance of exophthalmic goitre, and the small number of attacks subsequently to the development of the latter affection, appear to constitute a presumption in favour of the symptomatic nature of the epilepsy.

In considering the relation between the convulsive accidents and Graves' disease, M. Ballet points out that in the fourth case they were clearly shown to depend on the cardiac derangement, and he regards them, therefore, as of anæmic origin. 'To summarise we may conclude, having regard to our positive data, that epileptiform convulsions are often enough to be found in the subjects of Graves' disease; that sometimes these convulsions are symptomatic, are connected pathogenetically with other manifestations of that disease; that at other times they arise from genuine epilepsy, which in a manner is combined with Graves' disease, while retaining its autonomy and its own characteristics.' As to this combination the author says:—'Epilepsy, chorea, hysteria, Graves' diseases, are in fact so many kindred affections which are the legitimate

offspring of a condition yet vague and ill-defined, termed the "nervous diathesis" (neurotic temperament). What can be more natural, therefore, than their successive or simultaneous development, and their parallel evolution in the same subject.'

II. PARALYTIC PHENOMENA.—1. *Hemiplegia*.—The author records a case where a subject of Graves' disease traced its commencement from an attack of dizziness with a marked enfeeblement of the upper and lower left extremities. He also refers to analogous cases recorded by Tessier, Cheadle, and Chroestek. 2. *Paraplegia*.—A case is cited from the *Dublin Journal of Medical Science*, in which there was 'some enfeeblement of the upper extremities;' but, as the author points out, it would be difficult to determine how much of this is due to paresis, and how much to the tremor and incoordination above referred to. A case is then recorded with indubitable 'hysteric paraplegia,' the patient complaining of lacerating pains in the lower extremities, and being unable to walk. *Veratrum album* effected great improvement, and the patient left the hospital. She returned afterwards with the same condition, and subsequently left much improved after the administration of hyosciamine and the ether 'spray' to the spine. 3. *A Mixed Condition. Hemiplegia with Troubles of Sensation*.—Case 8. A woman, 40 years of age, suffered from epileptiform attacks between 8 and 18. At 38, signs of exophthalmic goitre appeared. There was a continuous and generalised trembling, and at a certain time there appeared hemianæsthesia, hemiplegia, and a certain degree of fugitive aphasia, all of which prove that the nervous lesion, the common cause of the exophthalmic goitre and the nervous symptoms, has here a bulbar or encephalic seat. Case 9, recorded at length, showed nervous troubles, both as regards general and special sensation, and also motion, the latter symptoms developing about five months after the onset of the disease. These symptoms were violent headache, with vertigo, trembling, want of co-ordination in movement, irresistible propulsion towards the right, and diminution of muscular force throughout the right side. There were also diplopia in certain positions of the eyes, and sensations of heat and cold irregularly distributed over the tegumentary surface; a sensation as though the whole of the right side was on fire, and a burning in the lips on contact with a drinking glass. Dysuria was marked. There was no albumen in the urine. There was want of support in the right leg, and the dynamometer showed that, while the force of the left hand was 30, that of the right was only 20. A generalised trembling also existed, together with a muscular tremor in the four limbs, though not on the trunk or tongue. There was hyperalgesia very marked throughout the whole right side, with diminution of thermic sensibility. There was an exaggeration of sensory reflex on both sides, especially on the right. On the left side the sensations of touch and heat were intact, and there was diminution of sensibility to pain to such an extent that the patient allowed the skin of the left foot to be burnt to the dermis in a heated foot-bath, experiencing no pain though the legs showed exaggerated reflex. There was slight commencing atrophy in the right limbs, but general and not localised. M. Galezowski's ophthalmoscopic examination showed symptoms pointing to paralysis of the right fourth nerve.

While considering that hysteria and neurotic conditions may be responsible for some of the accidents

recorded in these cases, the author considers the appearance of a dizziness premonitory to the hemiparesis in case 6, indicative of trouble in the encephalic circulation. 'In short, we may ask if the associated symptoms of Basedow may not be considered as in some instances consequent upon a lesion of the medulla and pons, which would then hold in dependence the palpitations, the exophthalmos, the goitre, and the paralytic phenomena.'

In support of this view, it is to be remembered that Filehne has reproduced the three symptoms of Graves' disease by experimental lesions of the restiform process. The observations of M. Panas, too, that the cardiac symptoms of Graves' disease are analogous to those following section of the vagus, and, moreover, the anxiety, terror, sadness, trifacial neuralgia, nausea, vomiting, and exaggeration of cutaneous and tendinous reflex, indicate that the seat of the lesion must occupy the pons Varolii and the medulla oblongata in the neighbourhood both of the sympathetic and of the pneumogastric centres in the floor of the fourth ventricle. The absence of oculo-pupillary troubles is attributed to the lower or spinal situation of that sympathetic centre escaping the lesion in Graves' disease. This interpretation is further supported by the symptoms to which the author refers next.

III. POLYURIA, GLYCOSURIA, AND ALBUMINURIA.—M. Ballet cites cases in support of the common association of these symptoms with Graves' disease, and considers them evidence in favour of its medullar origin. The author's conclusions may be briefly summed up as follows.

1. There are other symptoms due to nervous derangement besides the ordinary one of Graves' disease.
2. These symptoms are *convulsive, paralytic, or urinary*.
3. The symptoms of the first two classes appear to arise most often from a coincident neurosis, and not directly from Graves' disease.
4. Occasionally convulsive symptoms appear to arise *directly* from Graves' disease; they are then attributable to circulatory disturbance in the medulla oblongata and pons Varolii.
5. The lighter paralytic symptoms may be directly due to Graves' disease.
6. The urinary symptoms point to disturbed nerve-power in the medulla and pons.
7. Graves' disease is a manifestation of the *nerve diathesis*, which may be seen alone or accompanied by other manifestations.
8. There is room, however—referring to some clinical or experimental facts cited above—to ask whether certain lesions of the pons and medulla are not adequate to determine the associated symptoms of Basedow's disease.

K. W. MILLICAN.

ARTICLE 1650.

BRISTOWE ON ABSCESSES IN THE UPPER PART OF THE ABDOMEN.

DR. BRISTOWE, in the *Lancet*, Sept. 1883, p. 531, contributes an interesting lecture on cases of abscess arising in the upper part of the abdominal cavity. The first case recorded is one of a girl, aged 19, whose history was that she had been suffering from ulcer of the stomach, with vomiting of blood, for some time, for which she had been admitted into Westminster Hospital three or

four times. About three months previously to Dr. Bristowe seeing her, she had a sudden and intense attack of acute peritonitis, and it was assumed that perforation had taken place; under careful treatment the symptoms subsided, and, when she was first seen, Dr. Bristowe expressed a belief that the disease was tubercular peritonitis. Her progress seemed to accord with this diagnosis, and the fact that she had a slight cough, attended with some indications of mischief at the apices of the lungs, and that shortly before her death she expectorated some very fetid fluid, seemed to confirm it.

At the *post mortem* examination, tubercles were found in the peritoneum and in the lungs, but not sufficiently advanced to cause death. On examining the stomach, it was found that there had been an old ulcer which had perforated the organ; further, a circumscribed abscess was found between the stomach and the under surface of the liver and the diaphragm, the result of perforation of the ulcer of the stomach. The pus had found its way through the diaphragm into the base of the left lung, thus giving rise to the fetid expectoration shortly before death.

The second case recorded was that of a married woman, aged 27, who was supposed to be suffering from multiple embolism. There was pain in the splenic region, where a tumour of considerable size was felt, and which was distinctly adherent to the abdominal wall; no fluctuation could be detected. The patient had frequent rigors. A week or two before death, diarrhoea came on; the patient vomiting a yellowish fluid of the consistence of gruel, with a manifest faecal smell, and about the same time the tumour wholly disappeared. Finally, she brought up from the stomach solid lumps of faeces. It was now clearly evident that there had been an abscess in the situation of the supposed tumour, and that it had opened both into the colon and into the stomach. *Post mortem* examination verified the diagnosis.

The notes of a *post mortem* examination on a girl, aged 18, who died from the effects of an ulcer of the stomach, are also given. Here there had been perforation, causing circumscribed peritonitis, with the formation of fetid pus in the neighbourhood of the spleen, afterwards perforating the diaphragm, causing the lower lobe of both lungs to become congested and softened, and presenting numerous patches, from the size of a filbert downwards, in which the tissue was solid or broken down into a stinking gangrenous pulp.

Dr. Bristowe suggests that abscesses in the upper part of the abdomen, not due to abscess of the liver, are largely dependent on perforation of one of the hollow viscera; also, that evacuation of the contents of an abscess in this position should be performed as early as possible.

RICHARD NEALE, M.D.

ARTICLE 1651.

BOCKHART ON THE ETIOLOGY AND PATHOLOGY OF GONORRHOEA.

DR. MAX BOCKHART, of Würzburg, begins a paper on this subject (*Viertel. für Derm. und Syph.*, Heft i., 1883) by referring to the discovery of 'gonococci' by Neisser in 1879. He then goes on to state that since 1880 he and Dr. Wolff have examined 258 cases of acute and chronic urethritis, and that in all of them gonococci (as described by Neisser) were found. Bockhart also

found them in fourteen cases of purulent vaginitis with urethritis, and in two cases of purulent catarrh of the cervix uteri. In one case of muco-purulent discharge of eleven months' duration, gonococci were found in small numbers. In all the chronic cases, the organisms were few in number. In a case of catheterism with an instrument soiled with phlegmonous pus, a scanty purulent discharge appeared in twenty-four hours; but in this case, although other organisms were found, there were no gonococci. In gonorrhœal vaginitis, gonococci were found with other micrococci and bacteria. A case of experimental inoculation of gonococci is then recorded in full detail. A culture-fluid containing the organisms (fourth generation) was injected into the urethra of a man, aged 46, who was suffering from advanced dementia paralytica, and who for several months had passed urine and feces under him. The urethra is said to have been healthy at the time of the experiment. The fluid was injected on July 10, 1882; on the 12th the orifice of the urethra was red, and a drop of secretion pressed out contained neither pus-cells nor gonococci; on the 18th pneumonia was diagnosed, and on the 20th the man died. From July 12 to July 19, daily microscopical examinations of the urethral discharge were made; and in all the specimens, except that above mentioned, pus-cells and gonococci in large numbers were present. After death, the urethra and bladder were found to be inflamed, and the right kidney contained several abscesses. The pus from these abscesses also contained numerous gonococci, whence the author concludes that they were due to extension of the gonorrhœal inflammation set up by the injection of the culture fluid. The patient had never been catheterised. The urethra having been hardened in alcohol, sections of the fossa navicularis showed the presence of gonococci in the deeper lymphatics and blood-vessels. From this case the author concludes: 1. that the organisms called by Neisser *gonococci* are the pathogenic bacteria of gonorrhœa; 2. that gonorrhœa is a local specific inflammation which is due to the presence of gonococci, and is characterised by infiltration of the mucous and cavernous tissues of the fore part of the urethra with migratory cells, some of which contain gonococci. The various complications of gonorrhœa the author would also explain by the further diffusion of the gonococci; e.g. inflammation of the cord and epididymis he supposes to be due to spreading of the organisms to the vasa deferentia, and gonorrhœal arthritis to their extension through the circulation to the synovial membrane of the joint affected.

ARTHUR COOPER.

SURGERY.

RECENT PAPERS.

1652. HULKE.—Compound Dislocation of the Knee complicated with Dislocation of the Hip. (*Brit. Med. Jour.*, July, p. 1.)

1653. WALSHAM.—Division of Arteries between two Ligatures. (*Ibid.*, July, p. 109.)

1654. POWER, K. E.—A Hydrostatic Catheter. (*Brit. Med. Jour.*, March, p. 419.)

1655. BISHOP.—The Combined Use of Thomas's and Jordan's Laminated Splints. (*Brit. Med. Jour.*, July, p. 8.)

1656. PAGE.—Suture of the Ulnar Nerve Six Months after its Division. (*Ibid.*, June, p. 1223.)

1657. TURNER.—Compound Depressed Fracture of the Skull: Recovery without Trephining. (*Ibid.*, July, p. 15.)

1658. SOUTHAM.—Perforating Ulcer of the Foot and its Connection with Diseases of the Nervous System. (*Brit. Med. Jour.*, June, p. 1222.)

1659. DUNCAN.—Lawn-tennis Leg. (*Lancet*, July, p. 173.)

1660. LEDIARD.—Excision of Strumous Glands. (*Lancet*, July, p. 99.)

1661. MORRIS.—Rupture of the Bladder. (*Lancet*, July, pp. 8 and 51.)

1662. ELDER.—Cystotomy in Subacute Gastritis. (*Ibid.*, July, p. 10.)

1663. HOHENHAUSEN.—Suture of the Intestines. (*Deutsche Med. Wochens.*, Sept. 5.)

1664. HEUSNER.—Excision of the Urethra for Stricture. (*Deutsche Med. Wochens.*, July 11.)

1665. MOSLER.—Pulmonary Surgery. (*Deutsche Med. Wochens.*, May 9.)

1666. ENGLISH.—An Instrument for the Introduction of Soft Catheters. (*Wiener Med. Blätter*, June 7.)

1667. RUPPRECHT.—The Treatment of Boils and Carbuncles. (*Deutsche Med. Wochens.*, May 23.)

1668. ZOLOTNITZKY, V.—A Case of Self-Reduction of Strangulated Hernia after Hypodermic Injection of Morphine. (*Pratch*, 1882, No. 49, p. 833.)

1669. FARGAMIN, M.—A new Case of Reduction of Strangulated Hernia by Means of Electricity. (*Pratch*, 1882, No. 40, p. 680.)

1670. WINIWATER.—Retention of Bile from Occlusion of Ductus Choledochus; Fistula of Gall-Bladder. (*Prager Med. Wochens.*, and *Centralbl. für die Med. Wiss.*, Sept. 8.)

ART. 1652. *Hulke on Compound Dislocation of the Knee complicated with Dislocation of the Hip.*—Mr. Hulke, in the *Brit. Med. Jour.*, July 1883, p. 1, reports an instance of a very unusual injury. A man, aged 44, was run over by a cab, and brought to Middlesex Hospital. There was a wound on the inner side of the left knee, which entered the knee-joint; the head of the tibia was displaced outwards, and the head of the femur was dislocated upwards and backwards. Both dislocations were reduced under chloroform, the knee-joint was thoroughly syringed with a 5 per cent. solution of carbolic acid, and the limb fixed with a back and a long outside splint. All went well until the evening of the second day after the accident, when the patient had a rigor. The next day the knee was very much swollen, so that incisions were made at both sides into the joint. For about a week there was a general improvement; then the thigh swelled, the cutaneous veins became dilated, the temperature again rose, and it soon became manifest that any further attempt to save the limb was useless; amputation was therefore done by a modification of Teale's method. The operation was well borne; but on the morning of the third day an abscess broke near the lower border of the gluteus maximus in the left buttock; a week after the amputation hemorrhage occurred, and, though the femoral artery was promptly compressed, the patient became deeply collapsed, and died in about three-quarters of an hour. At the *post mortem* examination it was found that the end of the femoral artery—where it had been twisted—was softened, and had a small opening in it. The muscles round the hip-joint were lacerated, and in an extremely softened condition. Under the gluteus maximus there was a large quantity of foetid fluid, with broken-down blood-clot. Mr. Hulke remarks that the fever produced by the inflammation of the knee-joint

tended to cause the decomposition of the injured muscles about the hip-joint; and adds that it would have been better for the patient if the old plan of primary amputation had been performed, instead of an attempt being made to save the knee-joint. A careful examination was made of the condition of the parts around the dislocated hip, the details of which will be read with interest by many.

1653. *Walsham on the Division of Arteries between two Ligatures.*—Mr. Walsham, in the *Brit. Med. Jour.*, July 1883, p. 109, refers to a paper by Mr. Holmes in the journal of June 9, 1883, in which objections are brought against this procedure. Mr. Walsham, in the journal of April 7, contributed a paper on the subject, and in the July number brings forward arguments against the objections raised by Mr. Holmes. Mr. Holmes's objections are 'that it inflicts unnecessary damage on the artery; that its efficacy as a safeguard against secondary hæmorrhage is very dubious; whilst it seems more likely to delay the healing of the wound, and to expose the patient to greater risks of phlebitis and gangrene.' These objections, Mr. Walsham points out, are unfounded, and are more theoretical than borne out by practical experience.

1654. *Power's Hydrostatic Catheter.*—Mr. R. E. Power, in the *Brit. Med. Jour.*, March 1883, p. 419, describes a new hydrostatic catheter, designed for washing out the bladder after lithotomy. The special advantages claimed for it are:—1. facility in use for the operator, who, without aid, can turn on the stream or empty the bladder by a simple movement of finger and thumb; 2. constant and easily regulated pressure of cleansing fluid; 3. non-liability of injecting air into the bladder. A drawing of the instrument is given, and Messrs. Maw & Sons are entrusted with the sale of the apparatus.

1655. *Bishop on the Combined Use of Thomas's and Fournier's Jordan's Laminated Splints.*—Mr. Bishop, in the *Brit. Med. Jour.*, July 1883, p. 8, suggests that, by the conjoint use of Thomas's splint, and Jordan's laminated splint in cases of fracture of the neck of the femur, and in cases of hip-joint disease, one is able to construct an apparatus which gives complete control over the limb. The great drawback in Thomas's splint is its tendency to slip round; this can be remedied by fixing the splint by means of Jordan's splints. The weight of Thomas's splint can be remedied by using iron of No. 15 gauge for the uprights, No. 21 for the clips. The weakest patient can bear the weight of the combined splint, and the movements of the joint are completely controlled. [Aluminium splints, which are now being made, will possibly soon be manufactured so cheaply as to take the place of iron; and, their strength being equal, while their weight is less than half that of the old splints, they will be most valuable.—*Ref.*]

1656. *Page on Suture of the Ulnar Nerve Six Months after its Division.*—Mr. H. Page, in the *Brit. Med. Jour.*, June 1883, p. 1223, reports a case of a man, aged 25, who received a severe wound from glass on his left wrist, which took a long time to heal, and left a very painful cicatrix, as well as loss of power in the ring and little fingers, with wasting of the thenar and hypothenar eminences, and the interossei muscles. The patient was anxious for relief, and accordingly Mr. Page cut down on the site of the ulnar nerve, discovering the separated ends after some difficulty. The upper end was not enlarged, and a transverse section of it, when freed from the cicatrix, showed the appearance of healthy

nerve. The lower end of the upper portion was swollen to about three times its natural size, and ended in a firm bulbous nodule, which was bound in cicatricial tissue. From this it was dissected, and a third of an inch had to be removed before the section looked natural. The ends of the nerve were joined together eventually by three fine catgut sutures, and the wound healed by first intention. Within three weeks sensation had decidedly improved, the cicatrix was free from pain, and some power of extension had returned. The patient, however, was treated with galvanism and the faradic current for about eighteen months, and eventually recovered perfect strength and use of his hand. [A very large series of cases in which suture of the divided nerves was followed by cure may be consulted by reference to sect. 1248:2 in the *Medical Digest*.—*Rep.*]

1657. *Turner on Compound Depressed Fracture of the Skull, where Recovery took place without Trephining.*—Mr. Turner, in the *Brit. Med. Jour.*, July 1883, p. 15, records a case of a man, aged 31, who was admitted into the Seamen's Hospital, Greenwich, suffering from a wound on the right side of the head. On admission, he was sensible and rational; he had 'fainted,' and had been sick. Over the right parietal bone, at the posterior superior angle, was a small circular scalp-wound, through which the little finger could just be passed. At the bottom of this was a deep and well-marked funnel-shaped depression of the skull, towards the apex of which sharp edges of bone could be felt. A small quantity of brain-matter escaped from the wound. The wound was gently syringed out with carbolic lotion (1 in 40), dressed with carbolic gauze, and an ice-bag put to the head. The pulse remained about 52 for some days; there was occasional vomiting, and a tendency to constipation, relieved by a mercurial purge; the temperature only once rose to 100°2. In a month the wound had nearly healed, without ever having been touched with a trephine, and in two months the patient was discharged cured. Mr. Turner also reports a similar case which came under his care when surgical registrar at St. George's Hospital.

1658. *Southern on Perforating Ulcer of the Foot, and its connection with Diseases of the Nervous System.*—Mr. F. A. Southern, in the *Brit. Med. Jour.*, June 1883, p. 1222, reports four cases of perforating ulcer of the foot, from the comparison of which he distinguishes three classes into which this disease may be divided. 1. The ulcer may be entirely due to local causes—e.g. suppurative of a bursa beneath a corn. 2. The ulcer may occur in connection with locomotor ataxy, and apparently independent of any disease of the peripheral nerves. The ulcer may occur as an early or premonitory symptom, or as a late or terminal symptom. 3. The ulcer may occur in connection with disease of the peripheral nerves, without any evidence of locomotor ataxy, or other diseases of the central nervous system.

1659. *Duncan on Lawn-tennis Leg.*—Dr. Duncan, in the *Lancet*, July 1883, p. 173, refers to the report of a case by Dr. Powell, in the *Lancet*, July 7, and mentions three cases of ruptured plantaris tendon, which he has himself met with. Two cases occurred in gentlemen aged over 40 whilst playing tennis, the third in a stout gentleman whilst stepping into a railway-carriage. The patient feels as if a tennis-ball had struck him, and hobbles to a seat. It is necessary to order perfect rest for at least a month, before the leg can be used again with safety.

1660. *Lediard on Excision of Strumous Glands.*—Mr. Lediard, in the *Lancet*, July 1883, p. 99, reports two cases in which he has excised chronically enlarged strumous glands in the neck. The plan adopted was to make an incision over the gland, and to tease and tear away the caseous substance with forceps, thus preventing the loss of blood. If the gland have softened down, it is better to use a scoop. By this means one prevents the hideous scars which are formed when the case is left to nature. [Since Chassaignac recommended excision of strumous glands in 1856, many observers have followed out his directions, as may be seen in sect. 130:6 *Medical Digest*; and since the last edition of this work several very interesting cases have been reported in the *Brit. Med. Jour.*, Jan. 1882, p. 2, and Oct. 1882, p. 684.—*Rep.*]

1661. *Morris on Rupture of the Bladder.*—Mr. H. Morris, in the *Lancet* of July 1883, pp. 8 and 51, refers to the articles by Mr. Rivington, which appeared on this subject in the *Lancet* during last year in one of which Mr. Rivington discredits Mr. Morris's diagnosis. The case was that of a man who was supposed to have ruptured his bladder, high up in the organ. The patient passed about three-quarters of a pint of urine thirty-six hours after the accident, and subsequently plenty of urine was drawn off. This is enough evidence, in Mr. Rivington's opinion, that the bladder was not ruptured. Mr. Morris suggests that the most successful mode of treatment is to take care that the urine is removed as it enters, or soon after entering, the bladder, so as to prevent a further and a continual extravasation, and to guard against the reopening of the wound and the consequent excitement of fresh hæmorrhage and inflammation. Two cases are reported by Mr. Morris. One occurred in a boy, aged 15, who was run over by a nearly empty waggon. The abdomen was opened, with a view to sewing up the rent in the bladder; but, the organ being contracted, no wound was detected. The patient died soon, however; and on *post mortem* examination a rupture, about the size of a shilling, was detected in the front wall of the bladder. The second case occurred in a child, aged 8, who fell from a tree ten feet high. After many months, recovery, though slow, was complete.

1662. *Elder on Cystotomy in Subacute Cystitis.*—Dr. Elder, in the *Lancet*, July 1883, p. 10, records a case illustrating the strikingly successful result obtained by cystotomy, and subsequent drainage, when all other means fail in cases of chronic cystitis. The patient was a woman, aged 72, who had tried all sorts of treatment on account of incontinence of urine, accompanied with frequent desire to micturate, vesical tenesmus, dysuria, &c. Under ether, a vesicovaginal fistula was produced, and a winged catheter attached to a long piece of India-rubber tubing was inserted. The rest thus given to the bladder soon proved beneficial, and in three months the patient reported herself able to retain her urine between three or four hours. The urine was normal, and the fistulous opening had closed.

RICHARD NEALE, M.D.

1663. *Hohenhausen on Suture of the Intestine.*—Dr. Hohenhausen writes to the *Deutsche Med. Wochens.* of Sept. 5, regarding a new method of intestinal suture. Living in one of the Baltic provinces, where the inhabitants are largely employed in tending horned cattle, he has had many opportunities of treating internal injuries, and has been hitherto dissatisfied with the results. He turned

his attention, therefore, to experimenting with a modification of the method already suggested by Jobert. Having opened the abdomen of a dog under deep chloroform narcosis, and removed a small portion of the exposed intestine, he introduced into the lumen of the bowel a cylinder made of flour and water, coated with white of egg to give it a firmer consistence. Over this the edges of the intestine were united, the central end being invaginated into the peripheral, and the external wound was then closed in the usual way. No fever followed the operation. The animal was kept very quiet for three days, being at first more or less constantly under the influence of morphia, and on the third day a meal containing a considerable amount of fat was given, producing on the following morning the first stool since the operation. The external sutures were removed on the fifth day, and on the ninth he was released from observation, perfectly sound. In another dog, which was killed after twenty-four hours, remains of the cylinder were found a little way down the intestinal canal, and consolidation had commenced at the seat of injury, where the injection of the vessels was not great. An animal killed three weeks after operation showed an hour-glass contraction at the sutured point, from which delicate bands passed to the peritoneum and neighbouring coils of intestine, but the stricture easily admitted the little finger. Dr. Hohenhausen wishes for the experience of others in this experiment, and he sums up the essentials of the operation as follows. The animal must be deeply chloroformed, and must not have tasted food for twelve hours before. Antiseptic precautions must be strictly observed, especially as to the arrest of hæmorrhage. The cylinder must not be too large, but must slip easily into the intestine, and it must be of a suitable consistence. The animal should be kept for three or four days under the influence of morphia, and a stool should be induced by suitable food on the third day. Cold milk and iced water ought to be the first food, and broths may be given in about a week. Dr. Hohenhausen intends to treat his next case of intestinal rupture in this manner.

1664. *Heusner on Excision of the Urethra for Stricture.*—Dr. Heusner communicated a case to the Society of Physicians for the district of Dusseldorf (*Deutsche Med. Wochens.*, July 11), where he excised a portion of the urethra on account of stricture. The patient was a man aged 61, who was admitted to the Barner Hospital on account of acute symptoms, rigors, vomiting, and pain in the loins. Pus was passed in the urine, and an abscess was found in the neighbourhood of the left kidney, which was opened. Soon after, the stricture was diagnosed, lying somewhat anterior to the bulb in the pars spongiosa, and the very deaf and somewhat stupid patient then gave a history of gonorrhœa contracted thirty years before, causing considerable difficulty in passing urine ever since. After the pus had entirely disappeared from the urine, and when a hernia had been cured by Czerny's radical method, the treatment of the stricture was proceeded with. An incision was made into the urethra from the scrotum, both behind and in front of the stricture, and the stricture itself divided over a sound passed into it from behind. In order to obtain a better result, Dr. Heusner removed the constricted portion, going about $\frac{1}{2}$ centimètres into the sound tissue, and united the ends over a No. 16 catheter (Windler's scale), which was withdrawn on the third day. One month later, No. 17

could be passed easily, and, after three months, even No. 20. It was now six months since the operation, and the largest size mentioned could be passed with the greatest ease.

1665. Mosler on Pulmonary Surgery.—At the Medical Congress at Wiesbaden, held in April (*Deutsche Med. Wochenschr.*, March 9), Dr. Mosler, of Greifswald, spoke of the advance which has been made in the surgery of the lung since the time when cauterisation of the surface of the skin was first employed, with the result of causing an improvement of the symptoms. He had begun, in November 1872, to inject salicylic and carbolic acid into the parenchyma of the lung, without having heard of Koch's experiments, but he was not satisfied with the results, although one case of hydatids was cured by this means. Tubercle cannot be influenced by this mode of treatment, until the proper destructive agent for the tubercle-bacillus is discovered. Mosler then tried aspirating the pulmonary cavities and washing them out with antiseptic solutions, but the latest form of operative interference with the pulmonary tissue consists in passing the thermo-cautery into the diseased portion of the lung, after the resection of part of a rib. Mosler cured a case of hydatids by this means, and a case of chronic gangrene of the lung had recovered from the operation and was improving, when the substitution of thymol and boracic acid for salicylic acid in the dressing seemed to exercise a toxic influence on the patient, and he died. Mosler recommended the treatment in cases of gangrene or foul abscess of the lung, as the eschar formed assisted the antiseptic action of the fluids employed for injection, and also in cases of foreign bodies in the lungs which could not be expelled by the bronchi.

1666. English on the Introduction of Soft Catheters.—In the *Wien. Med. Blätter* of June 7, Dr. English describes and figures an instrument devised by him for introducing a soft catheter into the bladder. Having found that in altering the direction of a catheter during its introduction the stylette is often pulled back alone, and then pushed through the eye of the catheter, he tried to find a stylette which should be firmly fixed to the catheter, and yet be able to be easily withdrawn when the introduction is effected. Two clips are attached by a joint to the stylette near the handle; they are hollow, to fit over the catheter, and toothed at their fore extremity, to prevent it from slipping. The catheter is stretched over the stylette, and the clips shut down, being kept in place and firm by a ring which is slipped over them, and which can easily be drawn back when the stylette is to be withdrawn.

1667. Rupprecht on the Treatment of Boils and Carbuncles.—Dr. Rupprecht, of Hettstädt (*Deutsche Med. Wochenschr.*, May 23), regards furuncles, carbuncles, and anthrax pustules to be all dependent on an infectious cause, and the same treatment to be suitable for all of them. In boils, he removes the little scab which always forms early on the top, and presses into the purulent cavity a little piece of cotton-wool moistened with spirit of ammonia. This ought to be done six or eight times at a sitting, a fresh piece of wool being used each time, and it may be necessary to repeat the treatment on the following day. In very large boils scarification, and in carbuncles a cross incision, must precede the application of the ammonia; in anthrax, the scab must be removed, and the surrounding tissue scarified in a radiating form. The part should be dressed with boracic ointment after this cauterising,

and it generally heals without causing any disturbance. Boils in the external ear, where septic material is easily conveyed by the fingers, should be incised with a very small knife, and then dressed with some antiseptic which will not injure the tympanum, such as thymol, boracic acid, or iodoform.

ALICE KER, M.D.

1668. Zolotnitzky on Self-Reduction of Strangulated Hernia after Injection of Morphia.—In the *Pratch*, 1882, No. 49, p. 833, Dr. V. Zolotnitzky, of Kamysim, describes the case of a patient, aged 50, with left femoral hernia, who sought the author's help after he had suffered from strangulation for eighteen hours. Taxis having failed, the author injected one-fifth of a grain of acetate of morphia under the skin near the hernia, and left the patient. On his return an hour later, he found that the tumour nearly disappeared spontaneously. 'A single touch of a finger' completed reduction.

1669. Pargamin on a Case of Reduction of Strangulated Hernia by Electricity.—A perusal of the cases reported by Drs. Bronstein, Rosenhart, and Suprunenko (see the LONDON MEDICAL RECORD, 1883, March, p. 82) induced Dr. M. Pargamin (*Pratch*, 1882, No. 40) to use faradisation in the case of a patient, aged 80, with a right scrotal hernia of fifteen years' standing. The author first saw the patient about twelve hours after incarceration had developed. Three hours' taxis having remained without any result whatever, he began to faradise the tumour in various directions. After a quarter of an hour, faradisation—not alone, however, but with the addition of the renewed manipulations—succeeded in completely reducing the enormous hernia (about the size of a man's head).

V. IDELSON, M.D.

1670. Winiewarter on Retention of Bile from Occlusion of the Ductus Choledochus: Fistula of the Gall-bladder.—Nussbaum, the author observes, in his surgical work on injuries to the abdomen, has put the question whether, after the establishment of a fistula in the gall-bladder, the flow of bile into the intestines is possible, and whether by artificial adhesion of the intestines the bile could again be caused to pass into the intestines. The opportunity of a practical solution of this question, for the first time, has occurred to Dr. Winiewarter (*Prager Med. Wochenschr.*, 1883, and *Centralbl. für die Med. Wiss.*, Sept. 8). The patient was a strong and previously healthy armoured, who gave indications of retention of bile by the presence of an enormous enlargement in the region of the liver, and the total absence of bile from the excretions. An aspiratory puncture effected temporarily the discharge of fluid bile. A cause for this retention could not be assigned on any hypothesis. The continued absence of bile had caused malassimilation and consequent emaciation. Another evacuation of more than four litres (= about 7½ pints) of pure bile, by means of an ordinary trocar, allowed the diagnosis of atrophy of the liver. A third and a fourth puncture were made. Seven days after the last, and about three months and a half from the commencement of treatment, the rapid enlargement of the swelling seemed to be endangering life, and rendered imperative the establishment of a fistula of the bladder, by stitching the ascending colon to the gall bladder, thinned by repeated stretching. In fourteen days after the operation, when all inflammatory signs had subsided about the wound, a curved trocar was passed through the adhesion, and the cannula was suffered to remain;

the outer end being stopped, it being intended that the bile should flow into the intestine by a lateral opening (Fenster) in the cannula. This, however, did not take place; and a further incision into the bladder was necessary, and a trocar was passed through the septum between the bladder and intestine. By the insertion of a drainage-tube, the continuous flow of bile was secured. Under these conditions a contraction of the gall-bladder took place. Other operations were required to ensure and maintain the communication between the gall-bladder and intestine. This, however was at length effected, the bile flowed continuously into the bowel, and, in about two years from the commencement of treatment, cure was considered complete.

W. B. KESTIVEN, M.D.

THERAPEUTICS AND PHARMACOLOGY.

RECENT PAPERS.

1671. GATCHKOVSKY, G. T.—On Resorcin in Fungus Umbilici. (*Vratche. Vedom.*, No. 562, 1883 p. 3890.)

1672. On Carbamide in Intermittent Fever. (*Ibid.*, No. 564, 1883, p. 3920.)

1673. SUDEIKIN.—On Tartrate of Chinoline, its Physiological Action and Therapeutic Use. (*Vratche.* No. 29, 1882, p. 475, and No. 30, p. 492.)

1674. DEVLEZERSKY, V.—On the Use of Salicylate of Soda in Megrim. (*Ibid.*, No. 32, 1882, p. 539.)

1675. ARNOLDOFF, A.—On the Action of Ergotin in Delirium Tremens. (*Ibid.*, No. 37, 1882, p. 623.)

1676. TEPLIASHIN, AL.—Cold Douche in Intestinal Colic. (*Ibid.*, No. 35, 1882, p. 590.)

1677. ANANIN, K.—On the Treatment of Phthisis by Corrosive Sublimata and Sulphur Inhalations. (*Medic. Obozrenie*, June 1883, p. 835.)

1678. TOMASHEVSKY, S. P.—On the Use of Trichlorophenol in Syphiligraphic Practice. (*Vratche.* 1883, No. 18, p. 275, No. 19, p. 292, No. 21, p. 325, and No. 22, p. 340.)

1679. JACUBOVSKY, S.—Viburnum Opulus in Angina Pectoris. (*Vratche. Vedom.*, 1883, No. 553, p. 2724, and No. 574, p. 4086.)

1680. GATCHKOVSKY, G. T.—On the Treatment of Acuminated Condylomata by Resorcin. (*Ibid.*, No. 558, 1883, p. 3823.)

1681. VIGEZI, D.—Intravenous Infusion of Milk and of Solution of Sodium Chloride in the Treatment of Acute Anæmia. (*Annali Universali di Medicina*, Aug. 1883.)

1682. CONCELTI, L.—Tincture of Iodine in the Treatment of Intermittent Fever. (*Gazz. Med. Ital. Prov. Venete*, Oct. 20, 1883.)

1683. LEONARDI, Prof. P.—On the Comparative Value of Different Antiseptics. (*Gazz. Med. Ital. Prov. Venete*, Sept. 1, 1883.)

1684. RIGHT, F.—On the Action of Resorcin. (*Annali Universali di Medicina*, July 1883.)

1685. FRASER.—The Action of Infused Beverages on Peptic Digestion. (*Edin. Chir. and Path. Jour.*, Nov. 10, 1883.)

1686. WILSCHANN.—The Influence of Large Quantities of Water upon Fever. (*Centralbl. für die Med. Wiss.*, Sept. 22.)

1687. MARAGLIANO.—The Therapeutic Employment of Convallaria Majalis. (*Centralbl. für die Med. Wiss.*)

1688. PERETH.—The Hypnotic Properties of Paraldehyde. (*Berliner Klin. Wochensh.*, Oct. 1.)

1689. MENSCHIE.—The Medicinal Properties of Arlentin. (*Centralbl. für Klin. Med.*, No. 27; and *Centralbl. für die Med. Wiss.*, Sept. 29.)

1690. HASSALL.—Investigations relative to Inhalation and Disinfection. (*Lancet*, Oct. 1883, p. 580.)

1691. SPENDER.—The Use of Bromine Salts for Abdominal Neurosis. (*Brit. Med. Jour.*, Oct. 1883, p. 769.)

ART. 1671. Gatchkovsky on Resorcin in Fungus Umbilici.—In the *Vratche. Vedom.*, No. 562, 1883, p. 3890, the writer details the case of an infant, two months of age, who presented blennorrhœa of the navel, and a bright red globular solid tumour of the size of a bean. The tumour was fixed to the bottom of the umbilical fossa by means of a short pedicle. Any operative interference being refused, the author tried daily powdering with resorcin. After the first application the new growth became of a dark greyish colour, and markedly shrank. Five days later the tumour fell away, and within the next few days the blennorrhœa disappeared, and a normal cicatrization of the navel followed.

1672. On Carbamide in Intermittent Fever.—In the *Vratche. Vedomosti*, 1883, No. 564, p. 3920, an article, signed by a 'Military Medicus,' contains a short record on sixteen cases of intermitt which have been treated after a method lately recommended by Dr. Belousoff (see the LONDON MEDICAL RECORD, Aug. 1882, p. 322). Carbamide, in an aqueous solution, was given in doses from 15 grains to two scruples, four or five hours before the usual time of paroxysms. The results were these. Of sixteen patients, eleven were cured by carbamide; seven of the cured suffered from quotidian fever, four from tertian. In other five cases (three of quotidian fever and two of quartan) the administration of urea remained unsuccessful. In two of the cured patients the paroxysms disappeared after a single dose of 15 grains; in two, after a single dose of one scruple; in four, from two doses, one scruple each; in one, from a half drachm dose; in one, from two doses, one of which was of 15 grains, another of half a drachm; and in one, from two doses, a half drachm each. No awkward symptoms from the use of urea have been noted. Relapses after carbamide treatment were as frequent as after quinine.

1673. Sudeikin on Tartrate of Chinoline and its Physiological Action.—Dr. Sudeikin (*Vratche*, 1882, Nos. 29 and 30), who conducted his investigations in Professor V. G. Lashkevitch's clinical laboratory, at Charkov, used a five per cent. aqueous solution of tartrate of chinoline, which he injected under the dorsal skin in frogs and rabbits. He arrived at the following results. 1. Chinoline is one of the drugs which act tonically both on cold-blooded and warm-blooded animals. [Frogs die in two to three hours from two grains of chinoline, rabbits in about twenty-four hours from eight grains.] 2. It acts chiefly on the nerve-centres, and mainly on the spinal cord and medulla oblongata (paralyses the reflex activity). 3. It acts, also, on the respiratory centres (paralyses them). 4. It paralyses the excito-motor nerves of the heart. 5. It powerfully lowers the temperature of the body (e.g. after the administration of twelve grains to a rabbit the temperature in two and a half hours fell from 38°·3 C. to 32°·9, and in nine and a half hours to 29°·2). [Dr. Sudeikin's results, therefore, agree in general with those of Dr. Sakovsky; see the LONDON MEDICAL RECORD, April 1883, p. 145.—*Rep.*]

1674. Devlezersky on Salicylate of Soda in Migraine.—In the *Vratche*, 1882, No. 32, p. 539, Dr. V. Devlezersky, of St. Petersburg, reports the case of a

lady, aged 38, a member of a neuropathic family, who, since her first menses, began to suffer from severe paroxysms of migraine, notwithstanding treatment by iodide and bromide of potassium, ergotin, oxide of zinc, nitrate of silver, galvanisation of the head and cervical sympathetic nerve, &c. The paroxysms returned at intervals, varying from a few days to two weeks. At last, following the advice of some American physicians, the author decided to try salicylate of soda in $\frac{2\frac{1}{2}}$ drachm doses : one on the very first premonitory signs of the paroxysm coming, another an hour later. The results were brilliant : no paroxysm came. From that time up to the date of the article (four months had elapsed) the patient remained free from migraine attacks ; being compelled, however, on four occasions to have recourse to the same preventive treatment. [Professor Seeligmüller, of Halle, also thinks favourably of salicylate of soda as a means for preventing, or at least moderating, paroxysms of migraine. See *Eulenburg's Encyclopædie*, 1881, Vol. ix., p. 42.—*Rep.*]

1675. *Arnoldoff on Ergotin in Delirium Tremens.*—In the *Pratch*, 1882, No. 37, p. 623, Dr. A. Arnoldoff draws attention to the great value of ergotin as a remedy for acute and even chronic alcoholism. From his seven cases, treated by internal administration of the drug, it may be seen that sleeplessness usually disappears after a few first doses, and delirium entirely ceases after 1 grain or $\frac{1}{2}$ grains of ergotin has been taken. In a case of chronic alcoholism of six years' standing the following mixture was successfully administered. R. Ergotin, 2 grains ; bromide of potassium, 1 drachm ; water, 8 ounces. A tablespoonful to be taken every hour and a half or two hours. Recovery (that is, disappearance of craving, of insomnia with night hallucinations of sight and hearing, tremor, and sickness) followed after taking 4 grains of ergotin.

1676. *Teplashin on Cold Douche in Intestinal Colic.*—Dr. A. Teplashin, in the *Pratch*, 1882, No. 35, eulogises the pain-soothing effects of cold irrigations applied to the belly in cases of abdominal colic. The purpose is obtained by directing to the painful region a thin stream of cold water from a teapot lifted at 1 foot or $\frac{1}{2}$ feet from the abdomen. The author saw rapid relief even to the most excruciating pains, after the internal administration of opium and subcutaneous injections of morphia had failed.

1677. *Ananiin on the Treatment of Phthisis by Corrosive Sublimate, and Sulphur Inhalations.*—Dr. K. Ananiin, of Zaraisk (*Mediz. Obozr.*, June 1883), having started from the mycoparasitic theory of phthisis, and Professor Vallin's experiments on the action of various antiseptics on the tuberculous virus, treated six of his phthisical patients by corrosive sublimate, and other fourteen by inhalations of sulphur-vapour. As to corrosive sublimate, hypodermic injections of the drug (1 gramme of 1 per cent. aqueous solution daily) gave entirely negative results ; 1 to 900 of water from a steam-pulveriser brought only a slight improvement of expectoration and dyspnoea, all other symptoms remaining unchanged. The result was quite different in regard to the sulphur treatment. As the author's observations show, inhalations of vapours of sulphurous acid—1. lessen fever and night-sweats ; 2. lessen expectoration and change its properties (the sputa lose their purulent character and become mucous) ; 3. lessen dyspnoea ; and

4. improve the general nutrition and strengthen the patients (in consequence of diminution of fever and night-sweats). The patients were made to deeply breathe once or twice daily, for ten to twenty minutes, in a room in which from 1 to 3 ounces of sulphur to 77 cubic metres of the air were burnt. At the same time, there were daily made sulphur fumigations of the wards, beds, clothing, &c. [Dr. Rombro, also, speaks very favourably of the sulphur treatment of phthisis. See the LONDON MEDICAL RECORD, Aug. 1883, p. 323.—*Rep.*]

1678. *Tomashevsky on the Use of Trichlorophenol in Syphiligraphic Practice.*—The excellent results which had been obtained by Dr. Rubetz from the use of trichlorophenol in phagedenic chancres (see the LONDON MEDICAL RECORD, April 1883, p. 132), induced Dr. S. P. Tomashevsky, of Prof. V. M. Tarnovsky's clinic, St. Petersburg (*Pratch*, 1883, Nos. 18, 19, 21, and 22) to try the remedy in nine cases of soft chancres of the glans and prepuce, in seven of ulcerated chancrous buboes, and in several cases of primary syphilitic ulcers, deep syphilitic ecthymata, and gummy ulcers of the skin and subcutaneous cellular tissue. He used from one to two-and-a-half per cent. solution of trichlorophenol (R trichlorophenoli $\frac{5}{2}$ to $\frac{5}{2}$ ss., spiritus vini q.s. ad solut., glycerini puri lb. j.), which was applied to the diseased surface three times daily. Dr. Tomashevsky's results strongly differed from those of Dr. Rubetz ; in fact, they were so unsatisfactory as to have compelled the author to give up any further trial of treatment by trichlorophenol. In eleven of fifteen cases of soft chancres and buboes, even two or four weeks' application of the lotion did not check the ulcerative process ; the ulcers finally rapidly healed under iodoform. Of the remaining five cases, one (which, possibly, represented only an instance of ulcerated herpes proge-nitalis) was cured in eleven days ; in other four cases the cure followed in nineteen days. In almost all the cases, the use of trichlorophenol produced inflammation of the periphery of ulcers, which induced him to lessen the strength of the solution. As artificial or accidental inoculations showed, the discharge of chancrous ulcers dressed with trichlorophenol did not lose its virulence during a considerable period after the commencement of the application. Of the syphilitic cases, only one—that of an obstinate deep ecthyma of the leg—was successful, the ulcer rapidly healing under a two per cent. solution of the drug. In the remaining syphilitic patients, trichlorophenol displayed too strong irritating local action, to permit any prolonged experimentation.

1679. *Jacobovsky on Viburnum Opulus in Angina Pectoris.*—Dr. S. Jacobovsky (*Pratcheb. Vedom.*, 1883, Nos. 553 and 574) alleges that he has succeeded in curing two cases of angina pectoris by the administration of dry leaves of snow-ball tree (*Viburnum Opulus*, of Fam. Caprifoliaceæ, Trib. Sambucæ ; this shrub is very common all over Russia). One of the patients, a gentleman, aged 66, was cured in a month by smoking cigarettes made of viburnum leaves. Another, a woman, aged 24, was cured in two weeks by daily taking an infusion of two ounces of the drug in four ounces of distilled water. [The only question is, whether the author's patients really suffered from angina pectoris. Judging from Dr. Jacobovsky's description, the reporter is inclined to think that the first patient, an exceedingly immoderate smoker, might have 'tobacco-heart,'

and that the other might suffer from some kind of asthma.—*Rep.*]

1680. *Gatchkovsky on the Treatment of Accumulated Condylomata by Resorcin.*—Dr. G. I. Gatchkovsky (*Frachb. Vidom.*, 1883, No. 538) successfully treated three cases of warty excrescences ('cauliflowers') on the penis by the application of finely powdered resorcin, twice a day. The new growths invariably disappeared within two or three days, leaving no trace. The author insists on the necessity of using resorcin of pure white colour, since the brownish preparation possesses strong irritating properties. V. IDELSON, M.D.

1681. *Vigazzi on Intravenous Infusion of Milk and of Solution of Sodium Chloride in the Treatment of Acute Anæmia.*—Dr. Dario Vigazzi, clinical assistant to the School of Veterinary Surgery, University of Pisa, contributes an interesting paper, accompanied by details of his experiments on animals, thirty-four in number, to the *Annali Universali di Medicina* (Aug. 1883). After the intravenous injection of milk, the chief danger is the occurrence of embolism. The emboli are not formed by the milk-corpuscles but by blood-clots, which arise from the action of the lactic or butyric acids of the milk, when this is not of neutral or alkaline reaction. The simple experiment of adding milk to blood in a test-tube is sufficient to prove this formation of blood-clots. When slightly acid milk is introduced into the veins, it probably continues to give rise to the development of more acid (lactic or butyric). This acid is not developed in the blood, if the milk injected be perfectly pure and of neutral or alkaline reaction. The milk-corpuscles themselves pass readily through the capillaries. The greater the quantity of acid injected or afterwards developed in the veins, and the smaller the quantity of blood in the circulation, the greater is the risk of embolism. The injection of the milk of the cow or goat into the veins of animals or man is safe, and often of great utility if the following conditions be fulfilled. The milk must be freshly taken, and neutral or alkaline. A greater or less degree of acidity is often met with in the milk of animals fed on damaged hay, or if their temperature from any cause have been above normal: it is better, therefore, to add sufficient soda or potash bicarbonate to insure its being alkaline. The milk must be carefully filtered through a fine cloth. Alkaline milk is often 'sandy.' Small hard bodies of the size of a millet-seed, and consisting of phosphate or carbonate of lime, form while the milk is in the breast, and of course these could give rise to embolism. The milk injected must be about the temperature of the body, and must never exceed this. The animal (cow or goat) must be young and healthy. As to the quantity to be injected, Gaillard Thomas says that in man it must never exceed 7 ounces at one time. But no rule can be given: enough must be injected to revive the patient. Not more than 15 grammes (4 drachms) should be injected continuously: an interval of some seconds should be allowed before more is thrown in. Even when the patient is apparently dead from acute anæmia from hæmorrhage, intravenous injection of milk may restore him to life. Milk, besides stimulating the heart by the mere fact of its presence in the circulation, as saline solutions do, maintains the life of the patient in a more lasting way, either by affording nutritive material, or because it is eliminated more slowly than is the saline solution. The author would limit the intravenous injection of milk to cases of acute

anæmia and possibly to cases of poisoning by snake-bites, the patient being bled freely, so as to dilute the poison, and then the milk injected to supply the loss. In other cases, the homogeneous transfusion of blood is preferable. Infusion of milk is much easier than transfusion of blood, is less dangerous, and is not painful. Injection of a saline solution, 6 per 1,000 of sodium chloride, at a temperature of about 37° Cent. (98·6° Fahr.) may be practised, to enable us to gain time, whenever it is impossible to carry out the injection of milk.

1682. *Concetti on Tincture of Iodine in the Treatment of Intermittent Fever.*—Dr. Concetti reports 153 cases of intermittent fever treated with tincture of iodine in the Hospital of S. Spirito, Rome; 143 were cured, or 75·14 per cent. Twenty-four to thirty drops was the usual dose of a 12 per cent. tincture in 60 grammes (2 ounces) of water, given in three doses in the period of apyrexia. The tolerance of the system to the remedy was remarkable; in three cases only it caused gastric intestinal irritation. Among the successful cases were 14 quotidian, 24 simple tertian, and 20 double, and 4 quartan. The action of iodine, whether successful or unsuccessful, does not seem influenced by the type of the fever. The beneficent effect of iodine in malarial poisoning, especially in the acute form, is certain. Dr. Morison has recently reported in the *Maryland Medical Journal* 250 cases of malaria treated with the tincture of iodine with only two failures. In the same paper, he quotes a series of 500 cases treated with iodine with 90 per cent. of cures.

1683. *Leonardi on the Comparative Value of Different Antiseptics.*—On comparing the quantity necessary of the different antiseptics to produce sterilisation of a given quantity of an alterable liquid, the following figures resulted: Ozone, small fraction; oxygenated water, 1; bichloride of mercury, 5; hydrocyanic acid, 8; bromine, 12; chloroform, 300; potassic bichromate, 250; thymic acid, 400; carbolic acid, 600; potassic permanganate, 650; salicylic acid, 650; alum, 950; arsenious acid, 1,200; boracic acid, 1,500; arseniate of soda, 1,500; salicylate of soda, 2,000; borate of soda, 10,000; hydrochlorate of morphia, 14,000; alcohol, 15,000. To sterilise a cubic metre of air some milligrammes of ozone, less if wet, are required; a litre and a half of chlorine; and from 4 to 5 grammes of the vapours of iodine, bromine, and nitrous acid. The vapours of camphor, of sulphide of carbon, of sulphurous anhydride of crystallised carbolic acid, and of nitrous ether, are inactive. Ozon or spray of oxygenated water should be substituted for chlorine and carbolic acid in hospitals, &c. Ozon is most readily obtained by diffusing oil of turpentine in the air by any spray apparatus.

1684. *Righi on the Action of Resorcin.*—Resorcin is well borne in man, but it often induces for a short time vertigo, tinnitus aurium, and reddening of the face: very rarely it causes a sense of weight or burning in the stomach; its administration is almost always followed by copious sweating for two hours, and by darkening of the urine. When used externally, it does not stain the linen, and has no bad smell. In miasmatic diseases it is most valuable, in doses of 4 or 5 grammes in 100 or 150 of water, in divided doses daily; the attacks are prevented, and the malarial infection itself destroyed. It reduces recent splenic tumour, but has no influence over it when chronic. Righi gives 62 cases in detail,

among which were 8 quartan, 7 tertian, and 1 quotidian chronic and obstinate, and 46 recent cases; out of these, two cases, one quartan and one recent tertian, failed to be influenced by the remedy. In typhoid fever, pneumonia, and erysipelas, it causes a fall of temperature, but does not otherwise influence the course of the disease. In acute gastric catarrh, given with bicarbonate of soda in small and repeated doses (half a centigramme to not more than half a gramme every two hours) it is of the greatest value. In chronic blennorrhagic urethritis, as an injection (2 per cent. strength), it answers admirably. In conjunctival catarrh, acute and chronic, it is one of the best collyria; a $\frac{1}{2}$ per cent. solution was generally used. Its taste is not bad, and children take it readily.

G. D'ARCY ADAMS, M.D.

1685. *Fraser on the Action of Infused Beverages on Peptic Indigestion.*—Dr. James Fraser (*Edin. Chir. and Path. Jour.*, Nov. 10, 1883) has undertaken a series of experiments to determine the effect of the ordinary infused beverages, tea, coffee, and cocoa, on the digestion of albumen. He finds that all retard digestion, except in four instances, viz., ham and white of egg with coffee, and fish with cocoatina and with cocoa. Salt meats are less retarded in digestion than fresh. The retardation is greatest with cocoa, less so with tea, and least with coffee. Tea causes flatulence. Cream and sugar reduce the retarding effect of tea, but increase that of cocoa. He recommends as a practical conclusion that albuminoids, especially fresh meat, should not be taken with infused beverages, and therefore condemns 'meat-teas.' ROBERT SAUNDY, M.D.

1686. *Wilischanin on the Influence of Large Quantities of Water upon Fever.*—Dr. Paul Wilischanin, of St. Petersburg (*Centralbl. für die Med. Wiss.*, Sept. 22), says that dogs, made feverish by the injection of putrefying debrinised blood, were artificially fed with large quantities of warm water, their weight and bodily temperature being carefully noted. The following were the results obtained by Dr. Wilischanin. 1. The temperature fell under the influence of the imbibition of large quantities of water. 2. The deprivation of water in the later stages of the fever had also the effect of lowering the temperature. 3. The animals became dull and sleepy under its effects. 4. The appetite increased under the administration of larger quantities of water. 5. The deprivation of water induced a diminution of bodily weight. In animals kept without water during the febrile state, granular degeneration (?) of the kidneys, liver, and heart was found to a greater extent than in those supplied with excess of water. Of these organs, the liver most frequently had undergone this change. In some cases, the lesion was so far advanced as to have extended to the nuclei of the cells, which were themselves atrophied. The heart was least affected, the change having only effected an obliteration of transverse striae of the muscular fibres.

1687. *Maragliano on the Therapeutic Employment of Convallaria Majalis (Lily of the Valley).*—Dr. Maragliano, Director of the Clinical Institute, Genoa (*Centralbl. für die Med. Wiss.*), says that the remedy which, the author states, was much valued in the early half of this century, has again recently been recommended in heart-disease. Experiments by Dr. Lowrie show that intra-arterial pressure is not materially increased by its administration. The systolic pulse-curve is remarkably

raised, while the frequency of the pulse and respiration remain unaltered. The secretion of urine is augmented. Its action resembles that of digitalis, but is safer, inasmuch as its effects are not cumulative. No ill effects have been known to follow its administration.

1688. *Pereth on the Hypnotic Properties of Paraldehyde.*—Paraldehyde is a polymeric modification of aldehyde formed by the action upon the latter substance of mineral acids. Its formula is $C_6H_{12}O_3$. It is a colourless liquid, having a pungent taste, and an odour resembling that of chloroform, and which remains in the breath for twenty-four hours. Its boiling point is 124° Cent. ($=255^\circ$ Fahr.), and crystallises when cooled down to 10° Cent. ($=50^\circ$ Fahr.). It will redissolve in eight parts of water at 55° Cent. ($=131^\circ$ Fahr.). Its action is upon the nervous centres, especially the brain. In large doses its influence is exerted upon the spinal cord, destroying its reflex excitability, paralysing the medulla oblongata, arresting respiratory movements, and at last stopping the heart's action, which, however, can be maintained by artificial respiration. The experiments of Cervello (at the Laboratory of Strasburg) established a close resemblance in its action to that of chloral-hydrate, with the advantage, however, that it is safer as regards the heart's action, and, in moderate doses induces no disturbance of the general health. Dr. Pereth (*Berliner Klin. Wochensh.*, Oct.) noted its effects upon four healthy persons, and thirty-two patients with various maladies, in doses of from two to six grammes. In the healthy individuals a deep sleep ensued in the course of a few minutes, lasting from two to four hours. Soon after taking the paraldehyde, a feeling of lassitude and drowsiness crept over the individual, followed by deep sleep and loud snoring. The breathing and the pulse became slower, the temperature fell slightly. There was no change in the condition of the pupils. One patient took as much as 179 grammes in forty-two days; another took 162 grammes in forty-one days without any ill effects. It has been used in cases of senile decrepitude and of paralysis, in acute mania, and in melancholia, but the author did not discover that it has any special control over those affections; in slight cases of depression, however, it is almost curative.

1689. *Mensche on the Medicinal Properties of Arlentin.*—Arlentin, the alkaloid of uva ursi, is a potent diuretic, and, according to Dr. Mensche, becomes converted into hydrochinon and sugar by boiling with acids, or under the influence of fermentation. Dr. Mensche (*Centralbl. für Klin. Med.*, No. 27, and *Centralbl. für die Med. Wiss.*, Sept. 29) gives the following as the results of his observations upon the action of this alkaloid. 1. In many cases it has proved to be a valuable diuretic. 2. It may be given in large doses without detriment. 3. It becomes converted into hydrochinon in the human urine. Its action as a diuretic was noted in two cases; in one, a case of mitral insufficiency, enlarged liver, and albuminous urine, the quantity of urine was augmented by about four ounces in twenty-four hours. In another case (tubercular peritonitis) the quantity of urine was augmented by about six ounces daily. In another instance the amount of the excretion was doubled under the influence of arlentin. This medicine has, however, Dr. Mensche reports, a specially beneficial action in vesical catarrh; and he suggests its employment in the place of uva ursi. In gonorrhoea, the author considers that it

may supersede the use of injections by its conversion in the urine into hydrochinon.

W. B. KESTIVEN, M.D.

1690. *Hassall on Investigations relative to Inhalation and Disinfection*.—Dr. A. Hill Hassall, in the *Lancet*, Oct. 1883, p. 580, refers to a paper published by him in the *Lancet* of May 5, on certain experiments made with some of the principal oral and oro-nasal inhalers now in use. Recognising the inefficiency of the means now resorted to, for introducing into the lungs various antiseptic and other curative substances by means of inhalation, Dr. Hassall has made experiments with a view of charging the air of a chamber with the required medicaments. For effecting this purpose two principles are relied upon; 1, the greatly increased volatilisation of certain chemical substances, obtained by spreading the substances over a very considerable surface, and 2, the augmented evaporation obtained by increase of temperature in combination with extension of surface. These principles are also applied in the construction of oro-nasal and oral inhalers, and two inhalers are described, called the 'globe' oro-nasal inhaler, and the 'globe' oral inhaler.

1691. *Sponder on the use of Bromine Salts for Abdominal Neurosis*.—Dr. Sponder, in the *Brit. Med. Jour.*, Oct. 1883, p. 769, suggests the use of bromides in the treatment of sundry disturbances of the digestive organs. In a case of emotional diarrhoea in an elderly widow the author found great success in giving bromide of potassium. In the vomiting of pregnancy temporary relief is often obtained by the use of bromide of potassium. Again, in 1866, Dr. Begbie gave large doses of potassium bromide every hour or oftener, in the earlier stage of collapse in cholera. Lastly, in the treatment of saccharine diabetes, many of the special symptoms of that disease are kept much in abeyance by the use of bromide of potassium.

RICHARD NEALF, M.D.

SYPHILOGRAPHY.

RECENT PAPERS.

1692. ROSOLIMOS.—On the Nature of Gonorrhoea, and the Pathogeny of its Distant Effects. (*Annales de Derm. et de Syph.*, No. 1, 1883.)

1693. MOREL-LAVALLÉE.—Syphilitic Chancre of the Tonsil. (*Ibid.*)

1694. PROKSH.—The Doctrine of Venereal Contagion in the Eighteenth Century. A Historical Study. (*Ibid.*)

1695. JULIUSBURGER.—Gumma of the Eyelid. (*Ibid.*)

1696. JULIUSBURGER.—Perforating Gumma of the Frontal Bone. (*Ibid.*)

1697. ARNING.—A Case of Syphilitic Reinfection within Nine Years. (*Ibid.*)

1698. ARNING.—Case of Syphilitic Infection of a Pregnant Woman by her Husband. Child born healthy. Subsequent Infection of the Child by its Mother. (*Ibid.*)

1699. FERRARI.—On the Pathology and Clinical Features of Ulcerating Folliculitis. (*Giornale Ital. delle Mal. Ven. e della Pelle*, Fascic. i, 1883.)

1700. GEMMA.—A Case of Visceral Syphilis. (*Ibid.*)

1701. FOX AND OTHERS.—Dactylitis Syphilitica. (*Jour. of Cutaneous and Venereal Diseases*, Jan. 1883.)

1702. MORROW.—Chancre on the Chin. (*Jour. of Cutaneous and Venereal Diseases*, Feb. 1883.)

1703. TAYLOR.—A case of Second Infection with Syphilis. (*Ibid.*, April 1883.)

1704. ANFORD.—The Treatment of Pruritus Urethrae during Gonorrhoea. (*Ibid.*, April 1883.)

1705. MAURIAC.—Syphilitic Phagedena. (*Gazette des Hôpitaux*, April 19, et seq., 1883.)

1706. LIEBREICH, LEWIN, AND OTHERS.—Discussion on the Treatment of Syphilis by Formamidate of Mercury. (*Berliner Klin. Wochensh.*, No. 11, 1883.)

1707. BALZER.—Miliary Aneurisms of the Pericardium in a Syphilitic Subject. (*Arch. de Physiologie Normale et Pathol.*, No. 5, 1883.)

1708. LASSAR.—On the Excision of Indurated Sores. (*Berliner Klin. Wochensh.*, No. 23, 1883.)

1709. RAPHAEL.—Two cases of Syphilis of the Lungs. (*New York Med. Jour.*, May 26, 1883.)

1710. KNIGHT, C. H.—Syphilis and Aneurism. (*Archives of Medicine*, June 1883.)

1711. DOYEN.—On Changes in the Lymphatic Glands of Children suffering from Inherited Syphilis. (*Archives Gén. de Méd.*, June 1883.)

1712. MÜLLER.—On the Pathological Anatomy of Inherited Syphilis in Infants. (*Virchow's Archiv*, June 1883.)

1713. GAY, C. F.—Syphilitic Mammary Disease. (*New York Med. Record*, July 28, 1883.)

1714. DE SINÉTY.—Local Sweating in Connection with Syphilis. (*Gaz. des Hôpitaux*, No. 90, 1883.)

1715. KOEHLER.—On the Communicability of Syphilis to Animals. (*Wien. Med. Wochensh.*, No. 29, 1883.)

1716. OZENNE.—On Gummata of the Penis. (*Revue de Chirurgie*, No. 7, 1883.)

1717. AUBERT.—Heat and the Simple Chancre. (*Lyon Médical*, No. 32, 1883.)

1718. DIDAY.—On the Action of Heat on the Soft Chancre. (*Ibid.*, No. 34.)

1719. AUBERT.—Heat and the Simple Chancre. (*Ibid.*, No. 35.)

1720. ROCHET.—Soft Chancres of the Prepuce; resolution of an Acute Bubo after a Long Walk. (*Ibid.*, No. 39, 1883.)

1721. MACGOWAN.—The Chinese Origin of Syphilis. (*Lancet*, July 28, 1883.)

1722. HERSCHELL.—Gonorrhoeal Rheumatism. (*Ibid.*, Aug. 18, 1883.)

1723. FEDOTOFF, A. A.—On the Influence of Acute Febrile Diseases on Syphilis. (*Meditz. Prihr. K. Morsk. Sborn.*, Aug. 1883, pp. 46-55.)

ART. 1698. *Arning on a Case of Syphilitic Infection of a Pregnant Woman*.—Dr. Arning relates (*Vierteilj. für Derm. und Syph.*, Heft i., 1883) the following case, in which a child was believed to have contracted syphilis from its mother after birth. Mr. M. married his present wife four years ago. At the end of the first year after marriage, a healthy child was born. In the winter of 1880-81 a second child died at full term, during parturition, from strangulation of the umbilical cord. In the summer of the latter year the husband returned home with recently acquired syphilis and infected his wife, who was in the fourth month of pregnancy. She subsequently showed secondary symptoms, and was treated by a mild course of mercurial inunction. On Oct. 25 a vigorous child was born at full term, and was suckled by its mother, at first at both breasts, but afterwards at the right breast only, on account of fissures of the left nipple. This child was brought to the policlinic when three and a-half months old. The mother stated that, four weeks previously, she had noticed a sore place at the left angle of the child's mouth, which was followed by an eruption on the buttocks. On examination, an ulcer was found on the upper lip, and the whole lip was hard and infiltrated. The submaxillary glands were greatly

swollen. On the body was a papular syphilide, and there were papules about the anus and vulva. Under mercurial inunction, the sore on the lip healed and the rash disappeared. A month later there was periostitis of the left forefinger, and the child finally died of convulsions.

1701. *Fox and others on Dactylitis Syphilitica.*—Notes of a case of syphilitic dactylitis were read by Dr. G. H. Fox before the New York Dermatological Society (*Four. of Cutaneous and Venereal Diseases*, Jan. 1883). The patient was a man of intemperate habits, 24 years old, who had had syphilis for four years. Three and a-half years after infection, his right middle finger began to swell. There were a gumma on the right forearm, tenderness over the left tibia, and scars on both legs. The affected finger was swollen, especially on its palmar aspect, and of dull-red colour. The second joint appeared to be unaffected, but the distal end of the metacarpal bone was enlarged. After about three weeks of mercurial treatment, the swelling of the finger was slightly less, but there was an ulcer with a yellowish floor formed by the swollen periosteum. A fortnight later, the swelling was still further reduced, and in another fortnight the ulcer had nearly healed. He had been taking iodide of potassium for five weeks. Dr. Sturgis said that, in cases of dactylitis which had come under his observation, exacerbations of pain at night were not marked. He thought the absence of pain in the affection was peculiar, and that the co-existence of a rheumatic or gouty diathesis with syphilis increased the tendency to this affection. In such cases the joints were apt to be involved, whilst in dactylitis of purely syphilitic origin the joints were not affected. Dr. R. W. Taylor had seen eleven cases of dactylitis. He believed it to be rarer in acquired than in inherited syphilis. The diagnosis between the syphilitic and non-syphilitic varieties, he thought, could not be made in the absence of a history of syphilis in the parents, and of other signs in the child affected; but, if the lesion broke down, its syphilitic origin was almost beyond doubt. He had found a mixed treatment better than mercury alone. In active cases pain was usually severe, in slow cases it was slight. Dr. Taylor had received a letter from Sir James Paget, in which he asked whether these cases were not simply mixtures of gout, rheumatism, or scrofula with syphilis. Dr. Taylor did not doubt that those diatheses might complicate syphilis and greatly modify its course.

1702. *Axford on the Treatment of Pruritus Urethrae during Gonorrhoea.*—A case of intense itching during the third stage of gonorrhoea (*Four. of Cutaneous and Venereal Diseases*, April 1883) was relieved by the passage of a No. 16 (American scale) sound, after injection had failed. Distension of the urethra for one or two minutes, caused by the patient holding the end of the penis whilst making an effort to pass urine, had an equally good effect.

1707. *Balzer on Military Aneurisms of the Pericardium in a Syphilitic Patient.*—M. Balzer reports (*Archives de Physiologie Normale et Pathologique*, No. 5, 1883) the case of a man, aged 50, who was admitted into the St. Louis Hospital on March 5, 1883, in the last stage of phthisis. He had also a tertiary syphilitic ulcer which had destroyed the septum of the nose and part of the upper lip. He was treated with iodides, but died on March 15. *Post mortem*, caseous deposits and cavities were found in the lungs. The liver was large and fatty,

and the kidneys were congested. On the heart there were found thirty small aneurisms of the vessels of the pericardium, following the course of the left coronary artery, and at different points over the anterior surface of the ventricles and over the origin of the aorta and pulmonary artery. The aneurisms were all about the size of a pin's head, and had the characteristic appearance of military aneurisms of the brain. There were also some small hamorrhagic patches in the sheaths of the pericardial vessels, principally in the serous investment of the aorta and pulmonary artery. There were traces of old pericarditis, milky patches, and fibrous adhesions. Under the microscope, after colouring with picro-carmin, some of the aneurisms were seen to be saciform, attached laterally to the vessel and communicating with its channel by a small aperture; others were fusiform, the dilatation in some instances involving only one side of the vessel, in others the whole of its calibre. On several vessels there was a series of saciform dilatations, which gave them a moniliform appearance. Some of the aneurisms, again, were of the dissecting variety, but such were only found in arterioles. The greatest number of dilatations were in the capillaries, and in nearly all of them elastic fibres were absent. As regards the mode of formation of the aneurisms, the wall of the affected vessels could be seen in this case to be infiltrated, at a certain point, with numerous embryonal cells. Dilatation then occurred, the elastic fibres disappeared in the inflamed portion of the vessel's wall, and aneurism was formed. Dr. Balzer is of opinion that the inflammation of the pericardium and of its vessels, together with the consecutive aneurisms in this case, were due to syphilis, and remarks that the possibility of such a pathogeny is accepted by several authors, notably by Fournier.

1708. *Lassar on Excision of Indurated Sores.*—In a paper reprinted from the *Berliner Klin. Wochensh.*, No. 23, 1883, Dr. Oscar Lassar, of Berlin, states that he has excised the initial lesion of syphilis forty-eight times, the lymphatic glands in all cases being apparently unaffected at the time of the operation. When the sore was superficial, it was removed with one stroke of a pair of scissors after cleansing with a solution of carbolic acid or corrosive sublimate. When the induration extended deeply, the sharp spoon was used as well as or instead of scissors. The wound was then closed with catgut sutures and dressed with iodoform. Primary union was obtained in most cases. In some, firm oedema of the prepuce occurred; and in some, induration reappeared in the wound. In the latter case, excision was repeated. Thirty-seven of the cases occurred between October 1878 and August 1882; and, of these, nineteen disappeared from observation too early for any conclusion to be formed as to the result. Of the remaining eighteen patients, thirteen had general symptoms of syphilis in due course, but in no case were they severe. Lastly, five patients showed no signs of constitutional syphilis. The first of these was a man whose sore was excised in October 1878, twenty-six days after coitus. This patient has presented himself regularly from month to month for examination and has remained free from any further signs of syphilis up to the present time. In 1879 two patients were treated by excision, and they also have been under observation ever since. The scars in both remained supple. In one, the time after contagion was not ascertained; in the other, the

sore was excised during the fourth week. In the fourth case (September 1881) induration reappeared immediately after the wound had healed. Excision was then performed a second time. This patient also has been seen from time to time, and has shown no further signs. The fifth case occurred in January 1882, and also has been repeatedly examined since, without any signs of general syphilis being discovered.

1713. *Gay on Syphilitic Mammary Disease.*—Dr. Gay, of Buffalo, records (*New York Medical Record*, July 28, 1883) a case of disease of the mammae in a subject of inherited syphilis. A woman, aged 19, enjoyed good health until four years ago, when she began to have pain in both breasts, especially the left one, which subsequently became so sensitive that the weight of the bedclothes could not be borne. On examination, the left breast was hard and nodular, and so tender that it could not be properly examined without ether. There were three or four tumours of the size of a hickory nut in the left breast, and one smaller tumour in the right breast. The nipples were retracted. The uterine functions were normal, and the hymen was unruptured. Malignant disease was diagnosed, and the tumours of the left breast were removed, together with the greater portion of the gland itself. Three weeks afterwards there was no sign of union, and the wound looked and smelled like a syphilitic ulcer. A diagnosis of syphilis was then made, and mercury and iodide of potassium were prescribed. Under this treatment, healthy granulations sprang up in four days; and three weeks later, the wound was healed. The swelling disappeared from the right breast soon after the operation on the left. On searching the books of the hospital it was found that the father of the girl had been treated for syphilis when she was four months old. Dr. Gay remarks that the immediate effect of specific treatment proved that the disease was syphilitic, and he relies on the hospital record respecting the father above mentioned as proof that the disease was inherited.

1714. *De Sinéty on Local Sweating in connection with Syphilis.*—M. de Sinéty has recently had under his care (*Gaz. des Hôpitaux*, No. 93, 1883) a woman, aged 20, suffering from syphilis and gonorrhœa [stage of syphilis not mentioned], and under treatment by mercury and iodide of potassium, who, during the course of these affections, was seized with a sensation of tingling and copious perspiration of the feet and hands. These phenomena disappeared, together with other syphilitic affections, in twelve or thirteen days. M. de Sinéty agrees with Fournier that such local sweats are directly connected with syphilis.

1716. *Ozenne on Gummata of the Penis.*—M. Ozenne reports the following case which was under the care of M. Verneuil in La Pitié hospital: *Revue de Chir.*, No. 7, 1883). A man, aged 40, ten years after contagion, noted a hard swelling, of the size of a nut, on the dorsum penis. After some days the swelling inflamed and ulcerated. His medical attendant diagnosed malignant disease, and sent the patient to M. Verneuil, three months after the appearance of the lump. On admission, there was a circular ulcer as large as a shilling on the dorsum penis. The surface was unequal and yellowish, with an adherent slough. The edges were thin, sharply cut, and livid. The base was somewhat hard, but not adherent to the parts beneath. There was no pain. The dorsal lymphatic was enlarged, and the

prepuce slightly œdematous. There were also some enlarged glands in the right groin; no signs of syphilis elsewhere. Taking into consideration the previous infection with syphilis, the course and indolence of the lesion, the peculiar appearance of the edges, the absence of papillary hypertrophy, and the yellowish slough, M. Verneuil rejected the idea of epithelioma, soft chancre, and ulcerating syphilide, and diagnosed gumma. Under mercury and iodide of potassium, the ulcer healed in about a month. Eight other cases of gummata of the penis, already reported by various authors, are also given by M. Ozenne.

1717. *Aubert on Heat and the Simple Chancre.*—M. Aubert states (*Lyon Médical*, No. 32, 1883) that from experiments made by himself he has proved that the virus of the soft or simple chancre is rendered inert by exposing it for some hours to a temperature somewhere between 37° and 38° C. (98°-6 to 100°-4 F.), but the exact degree of which he has not yet determined. From this result of his researches, M. Aubert attempts to explain the many variations and complications that are observed clinically during the course of soft chancre. For example, he would account for the limitation of bubo to the most superficial glands and the non-penetration of the virus into the system generally, for the short duration of chancres of the cervix uteri, &c., by the fact of the higher degree of temperature of the deeper parts and organs of the body. Again, the favourable influence sometimes noticed in a case of phagedæna on the occurrence of erysipelas, and the destruction of the chancrous virus by gangrene are, according to M. Aubert's theory, to be explained by the local and general rise of temperature accompanying those affections. In the treatment of soft chancres, therefore, M. Aubert tries to imitate as closely as possible the rise of temperature observed in the diseases just mentioned—that is, to raise the local and general temperature of the body to a point above that necessary to destroy the virulence of the chancre; and this he accomplishes by the old plan of immersion in a hot water bath.

1718. *Diday on the Action of Heat on the Simple Chancre.*—This paper (*Lyon Médical*, No. 34) is a criticism on M. Aubert's notice. M. Diday does not agree with the elaborate theory built up by M. Aubert, and points out that it does not account for some of the phenomena that occur in connection with chancre, while it is unnecessary for the explanation of others.

1719. *Aubert on Heat and the Simple Chancre.*—M. Aubert's second paper on the same subject (*Ibid.*, No. 35) is a reply to M. Diday. The author repeats much of what he wrote in his original paper. He also reasserts that every bubo dependent on a soft chancre is primarily chancrous itself, and that when the bubo turns out to be a simple one, there has always occurred, for some reason or other, in the patient, a degree of fever sufficient to destroy the chancrous virus by the accompanying rise of temperature. As regards the treatment by the hot bath, M. Aubert remarks that by keeping the temperature of the bath above 30° C. (104° F.) which, he says, is easily borne by the patient for eight or ten hours, the temperature of his body may be raised to 39°-5 C. (103° F.) [An account of a number of local and syphilitic sores successfully treated by immersion in water at a temperature of 98° F. (a point below that deemed necessary by M.

Aubert (for destroying the chancreous virus), will be found in the *Lancet*, May 24, 1879, p. 731.—*Rep.*]

1720. *Rochet on a Case of Soft Chancre and Resolution of an Acute Bubo after a Long Walk.*—M. Rochet records (*Ibid.*, No. 3, 1883) the following case, in which he thinks the disappearance of the bubo after excessive exercise may be explained by M. Aubert's theory already noticed. A man, aged 26, was admitted under the care of M. Aubert on August 28, 1883, with chancres of the prepuce, phimosi, and an indolent bubo of the size of a pigeon's egg. The discharge from the sores was successfully inoculated on the same day. The patient's account of the matter was, that the bubo had appeared about a fortnight before, and that on the 25th (three days before admission) the swelling was very large, red, and painful. On the 26th he walked for about ten hours, the day being excessively hot. During the first few hours the pain increased, but afterwards gradually disappeared. On the 30th, two days after admission to the hospital, the bubo had nearly disappeared, but the chancres remained. M. Rochet's theory is that the quickening of the peripheral and central circulation by the long walk in the hot sun acted in a similar way to erysipelas or a hot bath in raising the temperature. M. Rochet also states that M. Aubert had already treated seven buboes by the hot hip-bath. Five of them, which burst or had been incised, remained simple. The other two, though large and painful, disappeared under the treatment.

1721. *Macgowan on the Chinese Origin of Syphilis.*—Dr. D. J. Macgowan, in a letter to the *Lancet* (July 28, 1883), says Chinese writers on syphilis state that that malady was unknown in their country, *i.e.*—the Valley of the Yangtze and regions northward, until about the middle of the ninth century, when it came from Canton and spread gradually over the empire. It extended to Japan also. [See abstract of a paper by Scheube, *LONDON MEDICAL RECORD*, August, 1883.] Dr. Macgowan states, further, that the Chinese were the first to employ mercury in the treatment of syphilis, its use being synchronous with the advent of the new contagion.

1722. *Herschell on the Treatment of Gonorrhœal Rheumatism.*—Dr. Herschell states *Lancet*, Aug. 18, 1883) that he treats rheumatism, whether due to gonorrhœa or other causes, by fluid extract of Manaca (*Franciscæ uniflora*) in five-minim doses every three hours, with results in most cases equal to those obtained by salicylate of soda. In some instances, Manaca succeeded when the salicylate had failed. ARTHUR COOPER.

1723. *Fedotoff on the Influence of Acute Febrile Diseases on Syphilis.*—Dr. A. A. Fedotoff, of Cronstadt, records (*Meditz. Prihaz. K' Morsk. Sborn.*, Aug. 1883) the case of a peasant, aged 25, who was admitted to the hospital for croupous pneumonia on the fifth day of the disease. On examination there were found also extensive mucous patches on the mouth and anus; numerous papule on the tonsils, penis, scrotum, thighs, and buttocks; and a considerable enlargement and induration of the inguinal, cervical, and cubital lymphatic glands. According to the patient's statement, syphilis had been contracted about a year before, and was left without any treatment. Pneumonia entered the stage of resolution on the seventh day. Within a week afterwards all the syphilitic signs, except some enlargement of glands, disappeared. [In the *LONDON*

MEDICAL RECORD, Aug. 1882, p. 329, Dr. Petrovsky's three cases of disappearance of syphilis from enteric fever, small-pox, and erysipelas; and, *ibid.*, Aug. 1883, p. 338, Professor Pick's two cases of rapid resorption of gummata from erysipelas, may be found.—*Rep.*] V. I. DELSON, M.D.

TOXICOLOGY AND MEDICAL JURISPRUDENCE.

RECENT PAPERS.

1724. PUTNAM.—Lead-Poisoning. (*Boston Med. and Surg. Jour.*, Vol. cix., p. 315.)
 1725. MAREAU.—Phosphorus-Poisoning. (*Druggists' Circ.*, 1883, and *Pharm. Centralblatt*.)
 1726. ROTH.—Sausage Poisoning. (*Vierteiljahrsschr. für Gerichl. Med.*, Band xxxix., p. 241.)
 1727. SATTLER AND DE WEEKER, CORNIL AND BERLIOZ.—On Jéquirity Seeds (L'Ophthalmie Jéquiritique par Sattler et De Wecker; Pamphlet, 1883. (*La France Médicale*, 1883, Tome ii., p. 481.)
 1728. PURCHHAUER.—Poisoning by Creasote. (*Friedreich's Blätter für Gerichl. Med.*, 1883, p. 430.)
 1729. PURCHHAUER.—Poisoning by Carbolic Acid. (*Ibid.*, p. 430.)
 1730. Poisoning by Carbolic Acid. (*Chicago Weekly Med. Rev.*, 1883, Vol. ii., p. 222.)
 1731. BISCHOFF. Distribution of Poisons in the Body. (*Ber. de Chemie.*, Band xvi., p. 1337.)
 1732. CARPENTER.—Poisoning by Tartar Emetic. (*New York Med. Record*, 1883, Vol. ii., p. 403.)
 1733. FUJIMI AND RUSSO-GILBERTI.—Poisonous Doses of Phenol and Allied Bodies. (*Moleschott's Untersuch.*, 1882, p. 237; *Schmidt's Jahrbuch*, Band cxvii., p. 233.)
 1734. LARGET.—Poisoning by Vanilla. (*Le Progrès Méd.*, No. 39, 1883.)
 1735. PARKINSON.—Hydrocyanic Acid as an Antidote to Strychnine Poisoning. (*Brit. Med. Jour.*, July, p. 165.)
 1736. MANGINI, F.—The Double Iodide of Bismuth and Potassium as a Test for distinguishing the Alkaloids. (*Gazz. Chim. Ital. and El Sentido Cat.*, March 15, 1883.)
 1737. DI MATTEI.—On the Action of Aqueous Dilutions of Calaverie O-gans in the State of Incipient Putrefaction. (*Archiv. delle Scienze Med.*, tomi v. and vi.; *Riv. Chim. Med. e Farm.*, Fasc. vi., 1883.)
 1738. LANGELEZ.—A Case of Poisoning by Jéquirity (*Anales del Circulo Médico Argentino*.)

ART. 1724. *Putnam on Lead-Poisoning.*—Dr. J. J. Putnam (*Boston Med. and Surg. Jour.*, Vol. cix., p. 315) brings forward several cases of lead-poisoning where the symptoms and clinical history were not such as are usually considered characteristic of lead poisoning, but, in fact, simulated other types of disease. Three of these cases were diffused forms of chronic interstitial myelitis, and two were of the character of cerebral neuroses. Besides these he has seen two cases, one presenting some of the symptoms of spastic paraplegia (so-called lateral sclerosis), and the other being a form of diffused poliomyelitis anterior. Dr. Putnam also emphasises the likeness and unlikeness of some forms of so-called saturnine encephalopathy to progressive paralytic dementia, to intracranial tumour, and to hemiplegia from cerebral hæmorrhage. The fallacy of mistaking bismuth in the urine, administered as a medicine, perhaps weeks before, is also pointed out; and an improved method of detecting lead in

the urine, devised by Professor E. S. Wood, is given. Of the urine a quart at least is evaporated to dryness, then fused in a crucible with the addition of a little pure nitrate of potassium till it becomes white. When cold, warm dilute hydrochloric acid is added to extract the residue. The solution is filtered, the filtrate made alkaline with ammonia, and sulphide of ammonium added to precipitate the iron and lead as sulphides. The precipitate is washed three times with hot water by decantation, then water is added, and the whole is acidified with hydrochloric acid, and allowed to stand till next day. It is then filtered, and the precipitate washed on the filter. A little pure nitric acid, free from iron, is then added, drop by drop, by which the sulphide of lead is dissolved, and carried through the filter as nitrate of lead. This is collected in a watch-glass, evaporated to dryness, and the final test is made by the addition of a drop of water and a crystal of iodide of potassium. [It is not stated how a distinction would be made between lead and bismuth.—*Rep.*]

1725. *Mareau on Phosphorus-Poisoning*.—Dr. Mareau (*Druggist's Circular*, 1883; *Centralbl. für Pharm.*) states that, when phosphorus is introduced into the system, it is oxidised there at the expense of the blood, forming hypophosphorous, phosphorous, and phosphoric acids. Death is not caused by these oxidised products of phosphorus, as has indeed been long known, but in their formation from phosphorus. Respiration ceases because this transformation takes a considerable quantity of oxygen from the blood, and, moreover, the red corpuscles that have been attacked are unable again to take up oxygen. Ordinary oil of turpentine prevents the poisonous action of phosphorus, by forming with it one or more non-toxic compounds, having no great affinity for oxygen, and these are eliminated by the urine. One of these is terebinthene phosphorous acid. For oil of turpentine to be effective, it must contain active oxygen; and as this is not the case with fresh rectified oil of turpentine, this accounts for its failure as an antidote to phosphorus. The oil should be given without a vehicle in doses of fifteen minims, every half hour for two or three hours, and all alcoholic liquors should be forbidden.

1726. *Roth on Sausage-Poisoning (Botulismus)*.—Dr. Emanuel Roth (*Vierteljahrsschr. für Gerichtl. Med.*, Band xxxix., p. 241) relates two fatal cases of sausage-poisoning. There were no definite *post mortem* appearances. In one of these cases Dr. Bischoff extracted from the contents of the stomach an alkaloidal body, which reacted chemically like aconitine. The nature of these reactions is not stated.

1727. *Sattler and others on Poisoning by Jequirity Seeds*.—Quite recently, a new remedy has sprung into notoriety in ophthalmology—the seeds known as jequirity seeds; and the action of these has been made the subject of several memoirs ('*Ophthalmie Jequiritique*,' by MM. Sattler and De Wecker: Paris, 1883, a pamphlet. '*Sur l'Empoisonnement par le Jequirity*,' by MM. Cornil and Berioz, in *La France Médicale*, 1883, ii., p. 481) The jequirity (*abrus precatorius*) is a papilionaceous plant, belonging to the order leguminosae, and is easily known by its bright scarlet appearance, with a black hilum. It is found abundantly in Brazil, and is known by a variety of names, e.g. rati, Indian liquorice; and its fruit, as '*pois pater noster*.' The seeds have long been known to the writer of this notice as being deleterious to children who use them as playthings; and they are now

largely employed in this country for the ornamentation of fancy boxes. They are the seeds used in 'suis' poisoning. An infusion of jequirity seeds introduced into the eye produces a now well-known form of ophthalmia, and the infusion is now largely employed in the treatment of diseases of the eye. Its activity is due to the presence of schizomycetes, of the genus bacillus, which the infusion contains in enormous quantities. An infusion of the cortex of the seeds is inert, as is also a crystalline alkaloid extracted from the seeds by M. Clermont. The subcutaneous injection of a similar infusion produces in guinea-pigs and rabbits a form of blood-poisoning, as if from micro-organisms, ending in the death of the animal, after the formation of internal abscesses. The infusion of jequirity when filtered free from organisms by the process of A. Gautier was innocuous; as was also a solution of a crystalline body obtained from the seeds by M. Chapoteau.

1728. *Pürckhauer on Poisoning by Creasote*.—Dr. Pürckhauer (*Friedrich's Blätter für Gerichtl. Med.*, 1883, p. 430) publishes an elaborate account of a fatal case of creasote-poisoning, with the remark that only two cases of poisoning by creasote have been previously recorded—one by Müller (*Würtemb. Correspondenzblatt*, Band xxxix., No. 42, 1866), the other by the writer of this notice (*Guy's Hosp. Rep.*, 1875, p. 44), a non-fatal case. In Pürckhauer's case a child ten days old received, as was computed, 24 to 30 drops of undiluted creasote. The symptoms were developed almost immediately, and were very like those produced by carbolic acid; injection and inflammation of all visible parts with which the poison came into contact, salivation, extremely contracted pupils, difficult respiration, imperceptible pulse, coldness of the extremities, profound coma, and loss of reflex activity. The child did not regain sensibility, was convulsed, and died sixteen hours after the administration of the poison. The necropsy showed lesions similar to those following the administration of carbolic acid—corrosion, local inflammation of the alimentary canal, dark blood, injection of the capillaries, and an all-pervading odour of creasote throughout the body.

1729. *Pürckhauer on Poisoning by a Carbolic Acid Enema*.—Dr. Pürckhauer (*Friedrich's Blätter für Gerichtl. Med.*, 1883, p. 430) also relates a not unusual case of poisoning by an enema of carbolic acid in water, where insensibility followed almost immediately on the administration. The patient, a girl aged 11, recovered, the rectum having been very speedily well washed out with warm water, till the washings lost all odour of the poison.

1730. *Poisoning by Carbolic Acid*.—Some recent cases of poisoning by carbolic acid are recorded (*Chicago Weekly Med. Review*, Vol. ii. p. 222, 1883) which are noteworthy in their bearings upon the duration of narcosis and the state of the pupils in this form of poisoning. Two children, eight and five years old respectively, each received an enema of a pint of water containing seventy drops of 95 per cent. carbolic acid. Five minutes later both fell asleep, and slept for twenty minutes. Waking out of sleep, they talked constantly and incoherently, and walked about in a restless manner. Shortly afterwards, their gait became unsteady, and they fell to the floor entirely unconscious, with widely dilated pupils, breath charged with the poison, skin bathed in perspiration, pulse full and frequent; and muscular agitation seemed to threaten convulsions. Two hours later, the muscular agitation subsided, coma supervened, and the children

could then be aroused only with difficulty. Six hours after the administration of the enemata the children became conscious, and vomiting set in, lasting for some hours; after which, they rapidly recovered. In another case, where the strong acid was swallowed, the patient also recovered consciousness in about six hours; but here the pupils were contracted, as is usual in carbolic acid poisoning, and not dilated, as in the first related cases.

1731. *Bischoff on the Distribution of Poisons in the Body*.—C. Bischoff has recently investigated the distribution of poisons in the various organs (*Ber. der Chemie*, Band xvi., p. 1337), selecting for his purpose carbolic acid, chloride of potassium, the oxaloids, and the cyanides. In the case of a man who had died a quarter of an hour after taking 15 grammes of a 91 per cent. solution of carbolic acid, 242 grammes of the contents of the stomach and small intestines yielded 0.1711 gramme of phenol; 112 grammes of blood, 0.259 gramme of phenol; 1,480 grammes of liver, 0.637 gramme of phenol; 322 grammes of kidney, 0.201 gramme of phenol; 508 grammes of cardiac muscle free from blood, 0.1866 gramme of phenol; 1,445 grammes of brain, 0.314 gramme of phenol; 420 grammes of gluteal muscle, traces of phenol; 125 grammes of urine, 0.0014 gramme of phenol. Thus most of the poison extracted was obtained from the liver, heart, kidneys, and brain. Experiments with chlorate of potash yielded no less definite results, the salt undergoing reduction in the human organism. In the case of a person poisoned by oxalic acid, 358 grammes of the stomach and its contents yield 0.75 gramme of oxalic acid, and a little oxalate of calcium; 412 grammes of liver, pancreas, kidneys, and heart, 0.0135 gramme of oxalic acid, and 0.95 gramme of oxalic acid as alkaline salt; 100 grammes of blood, 0.0067 gramme of oxalic acid as alkaline salt, and traces of calcium oxalate. In other cases, similar results were obtained. In cases of poisoning by hydrocyanic acid, the largest quantity of the poison was found, as might be expected, in the stomach; the liver also occasionally yielded relatively large amounts, and the poison was entirely absent from the urine.

1732. *Carpenter on Poisoning by Tartar Emetic*.—Dr. J. Stratton Carpenter (*New York Med. Record*, 1883, Vol. ii., p. 403), relates a case of poisoning by 170 grains of tartar emetic where recovery took place. A man engaged in a dispensary, mistaking a bottle of tartar emetic for one of cream of tartar, a salt which he was in the habit of taking, poured out the above quantity, as was calculated, of the former salt into a tumbler of water, and drank the solution. No unpleasant symptoms ensued until after the lapse of a quarter of an hour, when profuse vomiting set in, and violent gastric symptoms, followed by extreme prostration. Copious draughts of a solution of tannin were given, followed by albuminous drinks, and the deodorised tincture of opium was given to the extent of 120 drops in the course of two hours, in addition to a hypodermic injection of morphia. At one time the body temperature fell to 95°F., and there were rice-water evacuations streaked with blood. The patient recovered. In this case it is interesting to note the following facts. 1. The length of time that elapsed between the ingestion of so large an amount of the poison and the first symptoms: this being in accord with the view of the action of the poison upon the centres, absorption being first necessary, rather than its having any direct local irri-

tant action upon the membranes of the stomach, and so causing the violent emesis. 2. The urine, which, according to some authors, in the beginning of mild, and even of fatal cases, is increased in quantity, was in this case almost suppressed. 3. The respirations, which are said to become altered in rhythm by the action of the drug on the respiratory centres, were unaltered in character. 4. There were no disturbances of sensory function, the ability to appreciate thermic irritants remaining.

1733. *Fubini and Gliberti on Poisonous Doses of Phenol and of Allied Bodies*.—MM. Fubini and Russo-Gliberti (*Moleschott's Untersuch.*, 1882, p. 237; *Schmidt's Jahrbuch*, Band xcvi., p. 233) have investigated the lethal doses of phenol, thymol, cymen-thymol, and resorcin for guinea-pigs. The substances were employed in alcoholic solutions hypodermically administered. Thymol was least poisonous, 1.1 per milligramme of body-weight being the fatal dose. Phenol, cymen-thymol, and resorcin were more poisonous, the smallest lethal dose of each being 0.7 per milligramme of body-weight.

THOMAS STEVENSON, M.D.

1734. *Larget on Poisoning by Vanilla*.—Larget, of Bordeaux, says (*Le Progrès Méd.*, No. 39, 1883) that poisoning by vanilla has been noticed by Orfila, by Green at Altona, and in 1873 there were some cases of poisoning by vanilla ices in Berlin. (*See LONDON MEDICAL RECORD*, March 25, 1874, p. 173.) The symptoms are cholericiform, with skin-eruptions like measles, followed by desquamation and intense itching, complicated by papular and erythematous eruptions. These are due to the mould and the black granules, surrounded by an oily juice, which are found in the pods. The white dust which covers the pods causes a burning sensation, and an acarus which lies in the pods causes a pruriginous action on surfaces already inflamed. Larget found that a rabbit, confined in a hutch together with some packets of vanilla in a grated box, lost weight and manifested nervous excitement, recalling the anæmia and nervous irritability observed in workers in vanilla factories.

ROBERT SAUNDY, M.D.

1735. *Parkinson on Hydrocyanic Acid as an Antidote to Strychnine Poisoning*.—Mr. C. H. Parkinson, in the *Brit. Med. Jour.*, July 1883, p. 165, relates how a dog was attempted to be poisoned by strychnine, but the dose failed to produce death, bringing on only distressing symptoms which were painful to watch; a dose of hydrocyanic acid was given with a view to hasten death, but to the surprise of every one the animal recovered almost immediately. A cat, also dying from strychnine, was restored to life by dropping three or four drops of hydrocyanic acid on its tongue. [A glance at Section 387 : 4 of the *Medical Digest* would show that the value of prussic acid as an antidote in cases of strychnine poisoning had been long known. Dr. Harley, however, asserts that hydrocyanic acid increases the virulence of the poison.—*Rep.*]

RICHARD NEALE, M.D.

1736. *Mangini on the Double Iodide of Bismuth and Potassium as a Test for Distinguishing the Alkaloids*.—The reagent is prepared by mixing three parts of potassic iodide with sixteen of liquid iodide of bismuth and three parts of hydrochloric acid. So prepared, it is not made turbid by pure water, and its sensibility is such that it shows in a liquid the presence of $\frac{1}{500000}$ of strychnin. The reactions which the different alkaloids give are the following. With *Strychnin*, there is a clear yellow

precipitate; the liquid is clear; and, after standing some time, the precipitate becomes of an intense yellow. With *Brucin*, there is filamentous precipitate of a golden yellow; after standing, the colour fades. With *Morphia*, the precipitate is yellow red; the liquid clear; after some days' rest the precipitate disappears, and the liquid becomes of a canary yellow. *Cocain* gives a yellow-red precipitate; after rest, it becomes brick-red. With *Narcotin*, there is a clear yellow precipitate which remains suspended in the liquid for some time; after standing, it becomes reddish yellow. *Atropin* gives a filamentous precipitate which is deposited as a reddish yellow powder; after standing, the precipitate becomes canary yellow, and gradually dissolves, colouring the liquid a golden yellow. *Aconitin* gives a precipitate, at first in flakes, which are afterwards deposited as a chrome yellow powder. After standing, the precipitate does not change colour, but the liquid turns yellow. *Nicotin* yields a pulverulent red precipitate; after standing, the precipitate becomes of a reddish yellow. With *Cicutin* there is a pulverulent red precipitate more intense than with nicotin; after standing, the colour fades to a dirty yellow. *Solanin* gives a slow precipitate of a golden yellow colour, becoming more deep on standing. *Veratrin* gives a clear yellow precipitate, becoming lighter on standing. *Sulphate of Quinine* gives a brighter red precipitate, becoming dirty white on standing. The precipitate from *Sulphate of Cinchonine* is like that from sulphate of quinine; after standing, the tint is more intense.

1737. *Di Mattei on the Action of Aqueous Dilutions of Cadaveric Organs in the State of not advanced Putrefaction.*—In a previous work the author has shown that aqueous dilutions of fresh physiological organs, treated with animal charcoal, are not harmful to animals, whilst they are so if not treated with charcoal. In this present work he employs the same method to inquire if aqueous solutions of cadaveric organs are hurtful. The results are these. 1. The aqueous solutions of cadaveric organs in the state of incipient putrefaction (taken from twenty-four to thirty hours after death, in the spring and winter months, from subjects who died from disease not specially affecting these organs) introduced by any channel (veins, skin, abdominal cavity) into the organism, proved perfectly innocuous. 2. The aqueous solutions of such cadaveric organs, not submitted to any process of rigorous filtration, injected into animals, killed them in various times. 3. The death of animals following the injections of such unfiltered solutions, is not due to alkaloidal principles of specific nature, intrinsic to the substance of the cadaveric organs and dissolved in the menstruum, but is exclusively due to a common process of septicæmia.

1738. *Leglaze on a Case of Poisoning by Jequirity.*—Dr. Leglaze was called to see a youth, aged 19, who presented the following symptoms. The face was swollen, the eyes staring; there was great salivation, as after an injection of pilocarpine; the pulse was small and weak (180 to the minute), the skin dry, the extremities cold. While he was wondering what could have given rise to these symptoms, Dr. Leglaze noticed on the ground some little seeds, which, on picking them up, he recognised as the seeds of jequirity. On interrogating the family as to whence they came, he learnt that a friend, recently arrived from Brazil, had brought them as curiosities. As the symptoms were somewhat like those produced

by pilocarpine, he administered an emetic of ipecacuanha, and afterwards sulphate of atropine in a mixture, and applied warmth to the extremities. The patient soon recovered, and the next day was pretty well.

G. D'ARCY ADAMS, M.D.

PATHOLOGY.

RECENT PAPERS.

1739. BOLLINGER AND VON RECKLINGHAUSEN.—Tuberculous Inoculation. (*Wiener Allgem. Med. Zeitung*, No. 40.)

1740. DEMME AND RAUCHFUSS.—Tuberculosis in Childhood. (*Ibid.*, No. 39-40.)

1741. PASTOR, E. A.—On the Microscopical Examination of Obermeier's Spirilla. (*Ejend. Klin. Gazette*, 1883, May 29, pp. 357-8.)

1742. VERARDINI, Prof. F.—A Rare Case of General Emphysema. (*Gazz. Med. Ital. Lomb.*, Oct. 13, 1883.)

1743. BAUMGARTEN AND ARNDT.—Tubercular Inoculation. (*Centralbl. für die Med. Wiss.*, No. 42, 1883.)

1744. CHARPENTIER.—Ectopia of the Heart. (*Société de Méd. de Paris*, July 7, 1883.)

1745. SEYMOUR.—The Rate of Shrinkage in Cirrhosis of the Liver. (*Boston Med. and Surg. Jour.*, Sept. 13.)

1746. RICKARDS.—Fatty Transformation of the Kidney. (*Brit. Med. Jour.*, July, p. 2.)

1747. PIKE.—Undetected Cancer of the Stomach. (*Lancet*, Sept. 1883, p. 549.)

1748. PRITCHARD.—Hereditary Predisposition to Fractures. (*Lancet*, September, p. 394.)

1749. BRUNTON.—The Pathology of Dropsy. (*Practitioner*, Sept. 1883.)

1750. JOHNSTON.—Calculus and other Affections of the Pancreatic Ducts. (*Amer. Jour. of Med. Sciences*, Oct. 1883.)

ART. 1739. *Bollinger and von Recklinghausen on Tubercular Inoculation.*—At the recent meeting of the German Naturalists and Physicians, Professor Bollinger brought forward the results of some of his investigations on this subject. (*Wiener Allgem. Med. Zeit.*, No. 40.) Direct inoculation of tubercular virus under the skin of the guinea-pig failed to induce the disease even when the animals were placed under the worst hygienic conditions. Similar injections, however, made with milk derived from cows affected with bovine tuberculosis, resulted in every case in the reproduction of the disease. No result followed the injection of the same milk after it had been boiled, and hence the obvious deduction is insisted upon that precautionary boiling should be universally adopted. Professor Bollinger professes complete faith in the theory of infection from micro-organisms, and especially in the specific nature of the tubercle-bacillus, and in the identity of human tuberculosis with that form of the disease affecting the bovine animals. These views were strongly combated in discussion, by Prof. von Recklinghausen, who maintained that in the face of the fact that pathological changes, not distinguishable from those produced by tubercle, could be set up by the injection of indifferent or even crystalline substances, the discovery *post mortem* of this or that form of micro-organism could not be held to be conclusive as to the parasitic origin of such changes. That many varieties of micro-organism may make their way into the tissues and there develop and increase is undoubtedly true, but that they have any direct causal relation to all the pathological changes with

which they are associated, is denied. A familiar example is furnished by the small-pox pustule, in which certain bacteria are constantly found to be developed; but they certainly cannot be held to be the originators of the disease.

1740. *Demme on Tuberculosis in Childhood*.—An interesting discussion on this subject occupied one of the sittings of the Congress of German Physicians and Naturalists held recently at Freiburg (*Wiener Allgemeine Med. Zeitung*, Nos. 39-40, 1883). The relative frequency of the disease in new-born children, its development in early childhood, and the dangers of infection to which children become exposed, were each in turn considered. Prof. Demme, of Berne, gave as the result of his investigations the following facts with respect to the locality of the attack in congenital tubercular disease—viscera, 71·8 per cent.; joints and bones, 69·6; peripheral lymph glands, 65·4. The disposition to the development of tubercle is much increased after attacks of measles or prolonged whooping-cough. While maintaining that the inhalation of tubercular poison is more to be feared than its ingestion, he showed by his own and foreign observations the relative frequency of tubercular poisoning by unboiled milk, derived from animals affected with bovine tuberculosis. Professor Rauchfuss, of St. Petersburg, contributed a valuable summary from the pathological records of the Foundling Hospital in St. Petersburg, to show the relative frequency with which individual organs became attacked. His figures show that the lungs and bronchial glands are affected in nine-tenths of the cases; the liver, spleen, intestines, kidneys, pia mater, pericardium, and peritoneum follow in that order. A similar summary, derived from the large Foundling Hospital in Moscow, and arranged by Professor Klein, differs in small points only. The lungs and bronchial glands again head the list, which gives the liver, spleen, kidneys, choroid, intestine, pia mater, as next in order of frequency.

E. C. BEALE, M.B.

1741. *Pastor on the Detection of Obermeier's Spirilla*.—Dr. E. A. Pastor, of St. Petersburg, proposes (*Ejened. Klin. Gazeta*, May 29, 1883) the following simple method of the examination of the blood for the spirilla. A drop of the blood is compressed between two cover-glasses; then the glasses are separated and placed for five minutes in an air-bath at 100° C., after which they are immersed in a mixture of concentrated alcoholic solution of methyl-violet, with an equal part of distilled water, and allowed to remain there for five to ten minutes, the staining fluid all the while being gently warmed until faint vapour appears. The preparations are then taken out, washed in distilled water, and mounted in oil of cloves or cedar. The whole procedure requires from fifteen to twenty minutes. Under the microscope (VII. Hartnack), spirilla appear of a dark blue colour, and the nuclei of leucocytes of a violet, the background being almost colourless.

V. IDELSON, M.D.

1742. *Verardini on a Rare Case of General Emphysema*.—S. P., aged 45, a drinker, had suffered from lung-disease. On admission he had very troublesome cough, scanty, frothy, rust-coloured expectoration, great dyspnoea. The temperature in the axilla was 37 C. (98·9° F.). Great tumefaction was at once noticed of the face and of all the body and thighs, ceasing suddenly at the knees; there was crackling on pressure and pitting, but the pit filled up directly the pressure was removed. Auscultation was im-

possible; the heart was displaced to the left. On the next day the patient was worse with orthopnoea. A trocar was inserted in the sixth left intercostal space; much inodorous gas escaped violently; the cannula was left in. The dyspnoea was much diminished and the cough was less troublesome; the emphysema of the body, scrotum, and thighs persisted, but disappeared from the face. The next morning the patient suddenly died. *Post mortem*, the skin was crepitant; the subclavian veins and the left jugular contained bubbles of air. The anterior mediastinum was full of gas; the left lung was covered with a delicate layer of fibrine; the interior of the lung was solid and hardened; easily broken down pleuritic adhesions were present; the visceral pleura contained scattered tubercles, which in some parts penetrated it. Tubercles were also found in the apex of the left lung, which was emphysematous in the front part; no laceration was found. The air probably entered the pleura by the small tubercular lesions. G. D'ARCY ADAMS, M.D.

1743. *Baumgarten and Arndt on Tubercular Inoculation*.—Baumgarten and Arndt (*Centralbl. für die Med. Wiss.*, 1883, Nov. 42) have studied the daily progress of inoculations of tubercular matter in the anterior chamber of the eyes of rabbits. On the day following the inoculation there is only to be observed the irritative process by which the foreign body seeks to encapsule itself. The second day the bacilli contained in the inoculated mass have increased in number (a proof that the medium is favourable to the germination of the parasite). Around the mass there is an appearance of granulation tissue, the encysting material. On the third day, this granulation tissue adheres to the iris and cornea, and in both these structures bacilli can be found. On the fourth and fifth days, this invasion of bacilli becomes more distinct, both in the intercellular substance, and into the protoplasm of the fixed cell elements. On the sixth day, the iris and cornea present, here and there, little patches formed of agglomerated bacilli, and epithelioid cells. By degrees fresh tubercles, consisting of epithelioid cells with groups of bacilli, appear around the parent focus; and on the eleventh day the tuberculosis of the iris and cornea is visible to the naked eye. They found that, if the kidney is removed five weeks after the inoculation, a certain number of glomeruli are filled with bacilli, which appear to have penetrated by injection into the vascular tuft. This appearance suggests that the bacilli are transported by means of the circulation.

1744. *Charpentier on Ectopia of the Heart*.—Charpentier (*Société de Méd. de Paris* du 7 Juillet, 1883) presented a woman, aged 33, with tuberculosis and signs of a cavity in the right side. The heart-sounds were more distinct on the right side of the sternum; on the left side the normal cardiac dulness was replaced by resonant lung, and no impulse could be felt. On the right, dulness commenced on the inside, three fingers' breadth to the right of the middle line of the sternum, and passed outwards to a line drawn from the clavicle through a point one finger's breadth outside the nipple; above, it commenced five fingers' breadth below the clavicle, and passed down into the hepatic dulness; over this region the cardiac impulse was easily felt, especially above the mamma, but the apex-beat could not be determined either by palpation or inspection. The heart-sounds were normal, and, except in its position, the heart presented nothing abnormal. There was

no tumour or fluid effusion to account for the displacement, and the patient had always felt her heart beat on the right side. There was no history of heart-disease in the family.

1745. *Seymour on the Rate of Shrinkage in Cirrhosis of the Liver*.—Seymour (*Boston Med. and Surg. Jour.*, Sept. 13, 1883) relates a case where, on June 21, the liver-dulness extended from the sixth intercostal space to the umbilicus, and the organ was tender to the touch and rough on the surface and edge. On July 18, the liver was a third smaller. On Aug. 16, the liver-dulness measured only two fingers' breadths. Death occurred the following day, and the liver was found to be one-third of the normal size, and a typical example of hob-nail liver.

ROBERT SAUNDY, M.D.

1746. *Rickards on Fatty Transformation of the Kidney*.—Dr. E. Rickards, in the *Brit. Med. Jour.*, July 1883, p. 2, records some remarks on fatty transformation of the kidney, in which there is a replacement of renal structure by true adipose tissue, the contour of the organ being, to a varying extent, preserved. The author thinks that the fat is developed to fill up space created by the breaking down and discharge of renal tissue, the process being a physiological compensation, an effort of nature to prevent a vacuum. The origin of the fat may be accounted for in three ways; 1, hypertrophy of the circumrenal fat, which pushes its way into the interior of the organ at its hilum; 2, hypertrophy of the fat, which is normally found in small amount in the interior of the organ, between the apices of the pyramids; 3, absorption of fat by the cells forming the stroma of the organ. Several cases are alluded to where the kidney has been replaced by fat; Dr. Rickards gives the notes of a case of a man aged 24, in whom the left kidney was found to be transformed into adipose tissue, and at its hilum was impacted a triangular calculus, of the size of a tamarind-stone.

1747. *Pike on Undetected Cancer of the Stomach*.—Mr. Pike, in the *Lancet*, Sept. 1883, p. 540, reports two cases in which serious cancerous disease existed without any prominent symptoms. The first case occurred in a sailor of middle age, who slipped from the kerb-stone and immediately was seized with signs of perforation into the peritoneal cavity. On *post mortem* examination, scirrhous of the pylorus, with a large perforation from previous ulceration, was found. The second case was that of an old lady, aged 84, who had suffered from slight diarrhoea and loss of flesh. She suddenly vomited a large quantity of blood and died in a few hours. *Post mortem* examination revealed a large mass of cancer involving the pyloric end of the stomach and adjacent part of the liver. Ulceration had produced hæmorrhage from one of the vessels in wall of stomach.

1748. *Pritchard on Hereditary Predisposition to Fractures*.—Dr. Pritchard in the *Lancet*, September 1883, p. 304, records the case of a child, in whom fracture of the left humerus and left femur were discovered two days after birth. On the following day the right humerus was fractured, and about a fortnight afterwards the right femur was broken. The family history of the mother was good. The father, however, was one of eight children, two of whom suffered from fractures in infancy, and the only brother, who is married, is the father of four children, the first of whom had fracture of the arm, the third a fracture of the thigh, and the fourth frac-

tures of all four limbs, which occurred spontaneously, at, or soon after birth.

1749. *Brunton on the Pathology of Dropsy*.—Dr. Lauder Brunton, in the *Practitioner*, Sept. 1883, contributes an able article on the pathology of dropsy. Dropsy is an accumulation of fluid in the lymph-spaces. In the normal condition these lymph-spaces are only moistened with lymph, whereas in dropsy they may contain it in great quantities. Dr. Brunton compares the lymph-spaces to a cistern; the arteries and capillaries are supply-pipes, the veins and lymphatic vessels are the exit-pipes. In health, the lymph-spaces are merely moistened with lymph, because the veins and lymphatics at once carry it away from the spaces. If the lymphatics be ligatured, it is found that the veins are large enough to carry off the lymph, and no accumulation of fluid occurs. The lymphatics alone may also be sufficient to carry off the fluid when the veins are obstructed. Ligature of the veins produces increased flow of lymph through the lymphatics. The fascia between the muscles is spoken of as a pumping arrangement, by which the lymph is drawn out of the muscle, and is passed onwards into the lymphatics. In speaking of the well-known experiments of Claude Bernard on the sub-maxillary gland, attention is drawn to the remarkable change which is noticed if a dose of atropine be administered to the animal under observation. If the chorda tympani be irritated after poisoning by atropine, the vessels dilate, the veins become full, but not a drop of saliva is secreted by the cells. This is usually explained by saying that the atropine paralyses the peripheral ends of the secreting nerves in the cells of the gland, but Dr. Brunton explains the phenomenon by assuming that the atropine has so altered the vessels as to prevent the exudation of lymph from them into the lymph-spaces, at the same time that it has allowed the arteries to dilate; and thus atropine may have an action on the vessels of the gland which has hitherto been entirely overlooked, and if it have the power of preventing the exudation of lymph from the blood-vessels into the lymph-spaces, it will enormously increase our power to prevent or to lessen dropsy. Dr. Gaskell has shown that dilute acids cause relaxation of the muscular substance of the heart and blood-vessels, while dilute alkalies cause contraction. Under the influence of acids, therefore, tissues will become cedematous, whilst under the influence of alkalies there appears to be an arrest of the flow of lymph from the blood-vessels into the lymph-spaces. The increased permeability of the vessels may be produced by acids circulating in the blood, by acids applied to them from without, or by acids or poisons, which act like acids, absorbed from the intestinal canal or formed in the tissues themselves.

RICHARD NEALE, M.D.

1750. *Johnston on Calculous and other Affections of the Pancreatic Ducts*.—Dr. Johnston, of Washington, in an elaborate paper in the October number of the *Amer. Jour. of the Medical Sciences*, presents a good clinical study of this subject. Although he has been able to collect only thirty-five cases in which, upon *post mortem* examination, stony concretions were found in the pancreas, he cannot but believe that calculi are present in the pancreas far oftener than is supposed; and he can only attribute the paucity of medical literature upon the subject to the inexperience or carelessness of observers.

DISEASES OF THE NERVOUS SYSTEM.

RECENT PAPERS.

1751. LUKIN, M.—A Case of Plagiomicrocephalia. (*Tratch*, No. 26, 1882, p. 431.)

1752. SHIMIGIRO.—On a Case of Epileptiform Fits Caused by Prolapse of the Rectum. (*Proceedings of the Tula Medical Society*, 1881-82.)

1753. POPOFF, N.—A Contribution to the Study of Acute Myelitis of Toxic Origin. (*St. Petersburg Inaugural Dissertation*, 1882, p. 72, with 9 figures.)

1754. MARIE.—Basedow's (or Graves's) Disease. (*Archives de Neurologie*, July 1883, p. 79.)

1755. STRUMPELL.—A Case of Multiple Degenerative Neuritis. (*Archiv für Psych.*, Band. xiv.; and *Centralbl. für die Med. Wiss.*, Oct. 27.)

1756. REMAK.—A Case of Hypoglossal Spasm. (*Berliner Klin. Wochenschr.*, Aug. 20.)

1757. LECQ.—Apoplectic Attacks in Ataxy. (*Revue Mensuelle*, 1883.)

1758. STADTHAGEN.—Fulbar Paralysis after Diphtheria. (*Deutsche Med. Wochenschr.*, July 11.)

1759. BALLET.—Hemiatrophy of the Tongue in Tabes. (*Le Progrès Méd.*, No. 43, 1883.)

ART. 1751. Lukin on a Case of Plagiomicrocephalia. In the *Tratch*, No. 26, 1882, p. 431. Dr. M. Lukin, of Cronstadt, publishes the detailed *post mortem* description of a microcephalic boy, aged four. The antero-posterior diameter of the head was 12 centimètres, the transverse 9½, the diagonal 15. The skull had a dolichocephalic form, and was markedly asymmetric (more developed on the right than on the left side). The cranial bones were thin, with very scanty spongy substance. The brain weighed only 420 grammes. [In Rudanovsky's case, in the *Proceedings of the St. Petersburg Society of Psychiatrists*, 1880, it weighed 258·72 grammes in a patient aged seven years and eight months; in Professor Merzejewski's case 369·053, in a patient aged 60; in Theile's 300, in a patient aged 30; in Sander's 372·444, in a patient aged 18.] The measurements of the brain were these. The length of the hemispheres was 10 centimètres; their height in the middle, 5·3; their breadth at the level of the parietal lobes, 9; the length of the frontal lobes, 6; of the occipital, 1·8; of the cerebellum, 4·5; the breadth of the latter, 7; its height, 3·7. Two centimètres of the length of the cerebellum remained free—that is, were not covered by the occipital lobes. On the left side there were absent the anterior part of the fissura olfactoria, the whole gyrus rectus, fissura transversa (between the fissuræ supraorbitalis longitudinales), gyrus frontalis medius, gyrus uncinatus, fissura parieto-occipitalis, and fissura præcentralis superior. On the right side the fissuræ transversa and calcarina were absent. On both sides the lobuli paracentrales, quadrati, and cuneiformes were very narrow and very indistinctly separated one from another. During his life the boy presented the following phenomena. He was very cross and violent; in fits of anger he bit his own hands or everybody who interfered with him; he did not learn to speak; he asked for food by gestures; he was not able to take his food by himself (though he swallowed well); he invariably refused to drink; he began to walk at about two years of age; up to his very death he invariably walked only backwards, notwithstanding all his mother's efforts to teach him

the normal walk. According to Dr. Khrabrostin, who on two occasions saw the patient with his curious method of locomotion, the boy usually backed pretty rapidly, always carrying his head thrown far backwards. [Another similar account, by Dr. Flesch, may be found in the *LONDON MEDICAL RECORD*, May 1883, p. 202.—*Rep.*]

1752. Shimigiro on a Case of Epileptiform Fits caused by Prolapsus Recti.—Dr. Shimigiro, of Tula, reports (*Proceedings of the Tula Med. Soc.*, 1881-82) the interesting case of a gentleman, aged 33, who for three years suffered from epileptiform fits of gradually increasing severity and frequency. Of late, the seizures began to come several times a day, and were followed by general weakness, irritability, mental depression, giddiness, headache, and failing of sight. Examination gave entirely negative results as far as the nervous system was concerned; but a constantly occurring prolapsus recti was found. As the patient stated, he had suffered from occasional prolapsus since his childhood, but during the last few years the intestine fell out more frequently, and bled more profusely than before. After various anti-epileptic means having remained unsuccessful, the patient underwent an operation for prolapsus. The fits disappeared.

1753. Popoff on the Changes in the Spinal Cord in Acute Arsenic-, Lead-, and Mercury-poisoning.—From his experiments on dogs and guinea-pigs, conducted under the guidance of Professor I. P. Mierzejewski, Dr. N. Popoff (*St. Petersburg Inaugural Dissertation*, 1882) draws the following conclusions. 1. Arsenic, lead, and mercury, in acute cases of poisoning, produce marked changes in the spinal cord, which must be regarded as true acute central myelitis. 2. In less acute cases, the changes do not limit themselves with the grey matter, but spread to the white substance also, thus presenting the picture of a general diffuse myelitis. 3. The peripheral nervous system in acute poisoning by arsenic, lead, and mercury remains entirely unchanged. 4. All the nervous symptoms of poisoning by the substances under consideration (that is, spasm, paralysis, pain, and anaesthesia) may be fully explained by the central changes as stated above, and cannot be brought into any connection with lesions of the peripheral nerves.

V. IDELSON, M.D.

1754. Marie on Basedow's (or Graves's) Disease.—P. Marie (*Archives de Neurologie*, July 1883, p. 79) concludes, from a number of cases of this affection which have been under his care, that it is not owing to any disease of the pneumogastric or cervical sympathetic nerve, but that it is a more general neurosis. For this he relies on a variety of symptoms, such as paroxysmal diarrhoea, bulimia, vomiting, angina pectoris, accelerated respiration, cough, abundant local or general sweating, certain cutaneous affections, such as vitiligo, pigmentation, urticaria, falling out of the eyebrows and colia, and chiefly tremor. This latter symptom he considers constant, and different from the trembling observed in paralysis agitans, senile tremor, general paralysis, alcoholism, &c. In some cases it is general, distributed over all the muscles of the body; while in others it is chiefly observed in the upper extremities, rendering the patient unable to write, to sew; or it may only be seen when the patient is requested to extend his arms and hands. Filchne has shown that by cauterisation of the superior fourth of the restiform bodies in rabbits, tachycardia, bronchocele, and exophthal-

mos were produced. This, of course, does not show that Basedow's disease may be experimentally brought about; in the same way puncture of the fourth ventricle leads to glycosuria, but not to diabetes; lesion of the posterior portion of the internal capsule to hemianesthesia, but not to hysteria, &c. Basedow's disease does not simply consist of the triad of bronchocle, exophthalmos, and tachycardia, but also of a particular nervous condition, of which tremor is the most prominent and constant symptom. Marie is therefore inclined to consider that there are two different conditions, viz., exophthalmic goitre, which one might call surgical, and in which the exophthalmos is produced by compression; while Basedow's disease would be constituted by those cases in which, apart from the triad of symptoms commonly known, there are also tremor and other multiple nervous symptoms.

JULIUS ALTHAUS, M.D.

1755. *Strümpell on a Case of Multiple Degenerative Neuritis.*—Dr. Strümpell relates the following case (*Arch. für Psych.*, Band xiv.; and *Centralbl. für die Med. Wiss.*, Oct. 27). A drunkard, who had for several years experienced pains in his arms and legs, had, within the last year, suffered also from weakness of the lower limbs, which had recently amounted almost to paralysis extending also to his arms. He became confused both as to time and to place. The sensibility of the arms was unaltered; in the lower limbs, sensation was nearly obliterated. The reflex cutaneous phenomenon of the legs was feeble; tendon reflex was absent. The bladder and rectum retained their power. The optic disc was atrophied on both sides. Paralysis of the respiratory muscles, and death, occurred suddenly, three and a half months after the case came under notice. The anterior horns of the spinal cord, and the anterior roots of the nerves of the extremities, showed no macroscopic change, but the microscope showed atrophy of the nerve-fibres, with fatty degeneration of the muscles.

1756. *Remak on a Case of Hypoglossal Spasm.*—Spasm of the muscles of the tongue has been known as among other symptoms of general convulsive disorders; but it has not been recorded as an isolated affection. The immunity of the hypoglossal nerve from spasm is in remarkable contrast to other nerves, especially the facial, the predisposition of which to reflex and idiopathic spasmodic affections is well known. The following case Dr. Ernst Remak, of Berlin (*Berliner Klin. Wochens.*, August 20), considers to be of an epileptic character. A man aged 33, previously healthy, not having suffered syphilis, not having any known hereditary predisposition, experienced, without evident cause, a difficulty in eating and speaking. About four weeks before, he had noticed a peculiar sensation on the left side of the point of his tongue. Taste, and ordinary sensibility of the surface of the tongue, were unaltered. In about a fortnight this peculiar sensation had extended to the middle line of the tongue, and to the left half of the lower lip and gums, simultaneously with which painful spasmodic movements of the tongue occurred at short intervals—never entirely subsiding—whereby mastication was hindered. These movements of the tongue took place rhythmically, from forty to fifty times in a minute, and could be felt in the os hyoides and inferior maxilla. They were vigorous enough to force the tongue between the teeth, and became still stronger on an attempt to press down the tongue

with a spatula, or by a voluntary effort to suppress them. No deficiency of electrical excitability existed. There was a slight degree of paresis of the facial muscles evident in laughing. His speech was thick, and utterance slow. Of the alphabet, the letters *d, l, s*, were most indistinct. In the efforts at mastication the tongue was bitten, and the convulsive movements became augmented, and occasionally they would excite both tonic and clonic spasm of the muscles about the mouth, attended with a sense of swooning, but without complete loss of consciousness. The number and frequency of the convulsive movements of the tongue gradually decreased to five or six daily, so that mastication and articulation were restored.

W. B. KESTEVEN, M.D.

1757. *Lecoq on Apoplectiform attacks in Ataxy.*—Lecoq (*Revue Mensuelle*, 1883) has published some cases of ataxy, in which there were peculiar symptoms consisting of stupor and loss of consciousness more or less complete, followed or not by paralyzes of variable extent and duration. Such attacks might occur alone or in company with laryngeal crises or convulsions. The paralyzes usually existed only a short time.

1758. *Stadthagen on Paralysis after Diphtheria.*—In the Verein für innere Medizin on July 2 (*Deutsche Med. Wochens.*, July 11), Herr Stadthagen showed a patient affected with the 'bulbar paralysis' of Duchenne, coming on after diphtheria. A boy, aged 11, had suffered at the age of 4, from diphtheritic angina, which was followed immediately by the customary paralysis of the soft palate. When this had so far recovered that the power of swallowing was restored, the speech still remained somewhat nasal, and had continued so until the present time. The child's walking was noticed at first to be 'weak,' as if from the severe illness, but after a month or two his parents saw that he dragged the right leg. For the last two years the right arm had been weak, and had trembled when any movements were made with it. There was now paralysis of the lower part of the face, with inability to retain the saliva, difficulty of swallowing so long as the mass of food remained in contact with the voluntary muscles, and imperfect pronunciation of the labials and dentals. The right arm and leg were weak in their movements, the leg being rotated inwards and abducted, and passive motion could not be carried out in all directions, no atrophy of the muscles being, however, present. The lesion was considered to be of the nature of sclerosis, and to be situated in or above the medulla oblongata, extending downwards, but not far into the lumbar enlargement.

ALICE KER, M.D.

1759. *Ballet on Hemiatrophy of the Tongue in Tabes.*—Ballet (*Le Progrès Méd.*, No. 43, 1883) refers to the hemiatrophy of the tongue sometimes observed in tabes. One side of the tongue is reduced in size, furrowed, so as to give it a sort of vermicular appearance. There are sometimes fibrillary twitches; the point is deviated towards the atrophied side; speech is little, if at all, affected; and there is no embarrassment of deglutition or of mastication. It is generally associated with paralysis of the ocular muscles, and with atrophy of certain muscles of the limbs. It may be the only manifestation of tabes, appearing before any other sign; and in the presence of hemiatrophy of the tongue tabes should always be thought of.

ROBERT SAUNDY, M.D.

DISEASES OF CHILDREN.

RECENT PAPERS.

1760. LEROUX.—Albuminuria in Children.
 1761. HEUBNER.—The Hydrotherapeutic Treatment of Diseases in Children. (*Wiener Med. Blätter*, Aug. 30.)
 1762. HENOCH.—Lymphosarcoma in a child. (*Wien. Med. Blätter*, July 19 and 26.)
 1763. HAGENBACH.—A Case of Diabetes Insipidus. (*Fahrh. für Kinderheilk.*; and *Centralbl. für die Med. Wiss.*, May 12.)
 1764. Displacement of the Cranial Bones in Children having Intestinal Catarrh. (*Fahrh. für Kinderheilkunde*, Band xx., Heft. 2.)
 1765. BOUCHUT and SAINT-HUBERT SERRE.—Transitory Aphasia in Children. (*Jour. de Méd. et de Chir. Prat.*, Nov. 1883, p. 477.)
 1766. RODZEWICZ, H. T.—On the Resuscitation of Still-born Infants after Le Bon's Method. (*Tracheb. Vidom.*, 1883, No. 560, p. 3856.)
 1767. WILLIAMS.—Testis in Perineo, complicated with Congenital Inguinal Hernia and Acute Orchitis. (*Brit. Med. Jour.*, July, p. 110.)
 1768. SMITH.—Bimanual Detection and Removal of Stone in Children. (*Brit. Med. Jour.*, July 21, p. 126.)
 1769. EDWARDS.—Detection of Stone in the Bladder of Children by the Bimanual Method. (*Brit. Med. Jour.*, June, p. 1282.)
 1770. DAY.—A Case of Croupous Pneumonia in a Child, treated successfully by the Cold Bath. (*Erit. Med. Jour.*, Oct. 1883, p. 725.)
 1771. GOODHART.—Peritoneal Abscess in Children. (*Brit. Med. Jour.*, Oct. 1883, p. 775.)
 1772. BARLOW.—Rheumatism and its Allies in Childhood. (*Brit. Med. Jour.*, Sept. 1883, p. 509.)
 1773. PREVITI.—Condensed Milk as Food for Infants. (*Lancet*, June, p. 1085.)

ART. 1760. *Leroux on Albuminuria in Children*.—M. Leroux, as the result of researches on the urine of 118 girls and 212 boys in the *Hospice des Enfants Assistés*, has found that, in the case of children affected with marked albuminuria, the qualitative alteration appeared pretty constant, and independent of the time of examination; while in the case of children with only transitory albuminuria, he found that it was in the afternoon between one and three o'clock, that is to say after a full meal, that reagents most often threw down a cloud more or less marked, whilst equally fresh urine in the morning only gave negative results. From these facts he inclines to the opinion of Johnson (*Brit. Med. Jour.*, December 1879) against that of Furbringer (*Revue de Médecine*, June and July 1882, and accords a certain importance, as a factor in determining the presence of albumen, to the repast which has preceded the examination by two or three hours.

K. W. MILLICAN.

1761. *Heubner on the Hydrotherapeutic Treatment of Diseases in Children*.—Prof. Heubner, of Leipzig, has communicated to the *Arztel. Vereinsbl. für Deutschland* a paper on the hydrotherapeutic treatment of acute diseases in children (*Wien. Med. Blätter*, Aug. 30). The trunk in children comprises so great a proportion of the whole body, that the cooling of it produces a very marked effect on the whole organism. A cloth wrung out of water of the temperature of 16° C. (60·8 F.) should be placed over the chest, abdomen, and thighs of the child, and be well pressed down to the sides, the whole being covered with flannel. This should be renewed every half-hour with a temperature of 40° C. (104° F.), every hour when it is a little lower,

and the treatment should be kept up for the greater part of a day. The temperature will be still more reduced by cold packing all over the body, but the younger the child, the less can cold be borne. Another use of hydrotherapy is to induce heat and perspiration, and this is useful in catarrhal affections. The wet bandages must be surrounded by a looser flannel covering, and may remain for an hour and a half without being moved. The addition of a little mustard to the water will assist the action desired.

1762. *Henoch on a Case of Lymphosarcoma in a Child*.—Professor Henoch contributes to the *Wien. Med. Blätter*, July 19 and 26, an account of a case of general lymphosarcoma which came under his care in May 1880. The patient, a boy aged 11, had always been a weakly child, and had had an illness in Sept. 1879, described by the friends as a nervous gastric fever, which was accompanied by pains in the wrists and knees. When he recovered and went to school again, he suffered from difficulty of breathing, palpitation and pain in the region of the heart, and towards the end of the year from abdominal pains. In March, a swelling was noticed above Poupart's ligament on the right side, which was hard, and was at first thought to be a hernia. The pain and difficulty of breathing now increased so much, that the patient was taken into the hospital. He was there found to be extremely emaciated, the skin yellow in colour, and the abdomen so distended as to measure 75 centimètres (29½ inches) at the umbilicus. The thorax presented nothing abnormal except the emaciation, but the abdomen was so tender as to render palpation difficult. Several hard knots were, however, made out, and found to be rounded tumours, freely movable. Puncture of the abdomen, and the removal of nearly a litre of fluid, made little difference in the condition of the patient; and six days after admission he died, an oozing of dark blood from the anus having come on the day before, which soaked through the mattress. At the necropsy, the peritoneal cavity was found to contain a quantity of whitish fluid, consisting largely of round cells, while the omentum was thickened, and was closely set with little tumours, giving it a medullary appearance. The small intestine was wider than normal, and the wall was infiltrated with the new material to the extent of 3 centimètres in one place, while scattered masses abounded elsewhere. The mesentery of the infiltrated part of the bowel was enlarged to the size of a man's fist, and the whole of the stomach and intestines was strewn with small confluent tumours. A small tumour was found in each kidney, and numerous ones in the anterior and posterior mediastinum, but the spleen and the medulla of the bones were quite free. Very little blood was found in the body, and what was present showed no increase of white corpuscles. The intestinal hæmorrhage which occurred before death was explained by the fact that the infiltration of the intestinal wall had extended through the mucous membrane. There had been no enlargement of the external lymphatic glands which could be felt during life.

ALICE KER, M.D.

1763. *Hagenbach on a Case of Diabetes Insipidus*.—O. Hagenbach relates in the *Fahrh. für Kinderheilk.*, Band xix. (*Centralbl. für die Med. Wiss.*, Mai 12), the following case. A girl aged 4½ years, who had suffered for about nine months from extreme thirst and increased excretion of urine, died after fourteen days' illness from tubercular meningitis.

gitis. The urine on some days had amounted to 10 litres (= about $17\frac{1}{2}$ English pints). On dissection, tubercular meningitis, a caseous tubercle of the infundibulum, and softening of the corpus striatum were found, with distension of the lateral and fourth ventricles.

W. B. KESTEVEN, M.D.

1764. *Mayer on Displacement of the Cranial Bones in Children having Intestinal Catarrh.*—Mayer describes (*Fachbuch für Kinderheilkunde*, Band xx., Heft 2) a displacement which involves the frontal, the occipital, and the two parietal bones, and always occurs in the same direction, the parietal bones being always uppermost and the frontal and occipital bones dipping under them. This arises from the parietal bones being the less movable; but there is normally a tendency that way, for Dr. Mayer measured the skulls of twenty-six infants on each side of the coronary and the lambdoid sutures, and found on an average that there was excess of about 4 mm. in favour of the parietal borders. Very rarely it happens that one parietal bone rides over the other. When this is the case the right side is usually uppermost. The diminution of intracranial pressure, without which this overriding would of course be impossible, is due partly to a lessening of the total quantity of the blood, partly to diminished flow of lymph. The brain in these wasted cases shows to chemical examination no loss whatever of fat, and only a slight loss of water and albumen.

RALPH W. LEFTWICH, M.D.

1765. *Bouchut and Saint-Hubert Serre on Transitory Aphasia in Children.*—Bouchut relates (*Jour. de Méd. et de Chir. Prat.*, Nov. 1883, p. 499, *et seq.*) three cases of transitory aphasia without hemiplegia, coming on, in children aged 2, 9, and 3 years respectively, and recovering in a few days with mild counter-irritation; the aphasia was complete, and in two cases came on suddenly. He has also observed it as a sequela of typhoid fever, in which case it was intermittent, and recovered completely. A. Clarus has related twelve cases, all fatal; also cases after measles, variola, and scarlatina. Saint-Hubert Serre relates two cases, in a girl aged 8 and a boy aged 9. In the latter case, after recovery there was a relapse; both patients ultimately recovered completely. The cause seems not to be any organic lesion, but some functional disturbance of the speech-centre.

ROBERT SAUNDY, M.D.

1766. *Rodzewicz on the Resuscitation of Stillborn Infants after Le Bon's Method.*—In the *Vracheb. Vedomosti*, 1883, No. 560, p. 3856, Dr. H. I. Rodzewicz, of Nijni-Novgorod, relates the case of a primipara, in which he delivered, by podal version, an infant without pulsation in the umbilical cord, or any other signs of life. Schultze's method having proved unsuccessful, the author took a large basin, filled it with hot water from the *samovar* (Russian tea-machine), added cold water until the temperature of about 35° R. had been reached, and placed the infant in the basin, leaving free only her head. In a minute or so the child began to breathe and lustily cry. [Identical cases may be found in the LONDON MEDICAL RECORD, May 1882, p. 199 (Rusanofsky's); and July, p. 286 (Greult's).—*Rep.*]

V. IDELSON, M.D.

1767. *Williams on a Case of Testis in Perinao, complicated with Congenital Inguinal Hernia and Acute Orchitis.*—Mr. J. A. Williams, in the *Brit. Med. Jour.*, July 1883, p. 110, narrates the case of a child, aged 2 years, in whom, on examination, it was observed that the right testicle had not descended

into the scrotum, but was retained in the right inguinal region. Besides this, it was apparent that there was a hernia occupying the upper part of the swelling in the right groin, and the lower part of the swelling was seen to contain fluid. This was drawn off by puncture, and proved to be of inflammatory origin. The case was then diagnosed to be one of an undescended testicle, complicated with congenital hernia and acute orchitis. No special treatment was adopted, the mother of the child being told to bring it to the hospital frequently in order that the case might be watched. A table is also given of twenty-five cases in which malposition of the testicle has been observed.

1768. *Smith on Bimanual Detection and Removal of Stone in Children.*—Mr. Hugh Smith, in the *Brit. Med. Jour.*, July 21, p. 126, reports a case under Mr. Churchill, at the Victoria Hospital for Children, of a child, aged 9 years, who was suspected to be suffering from a vesical calculus. The patient being under chloroform, it was decided to determine the shape of the calculus by rectal examination. This being done, Mr. Churchill proceeded to remove the stone by the usual operation of lateral lithotomy. Finding difficulty in extraction with the forceps, and also with the scoop, Mr. Churchill decided to extract the stone by manipulation. The left index finger was introduced into the bladder, and the calculus (a conglomerate mulberry one—weight, 280 grains) was hooked by the finger straight from the fundus to the neck of the bladder. Mr. Churchill then introduced the right index finger into the rectum, and, by cautiously removing the left index finger, which fixed the stone, the calculus was tilted up and pressed through the opening into the bladder, and then through the external incision.

1769. *Edwards on Detection of Stone in the Bladder of Children by the Bimanual Method.*—Mr. F. S. Edwards, in the *Brit. Med. Jour.*, June 1883, p. 1282, refers to a paper in the journal, p. 1225, where Mr. Sansome remarks that detection of stone in children by the bimanual examination has not been mentioned before. Mr. Edwards draws attention to Bryant's *Surgery*, p. 93, where the following paragraph will be found:—“In children, the introduction of a finger into the rectum facilitates at times the search, and the pressure of the hand above the pubes facilitates the detection of a stone.” The subject is also mentioned on p. 1039 in Holmes' *System of Surgery*, 1870. [In the *Med. Times and Gazette*, April 1882, p. 366, the mode of rectal examination in cases of vesical calculus in the child is fully detailed, and it is stated “that its utility is generally acknowledged.”—*Rep.*]

1770. *Day on a Case of Croupous Pneumonia in a Child, treated successfully by the Cold Bath.*—Dr. W. H. Day, in the *Brit. Med. Jour.*, Oct. 1883, p. 725, reports a case of a boy, aged 13, who was suffering from headache and vomiting, with high fever and pains in abdomen; there was great stupor, with heaviness of expression and restlessness. No abnormal chest-symptoms were detected until the fifth day of the illness, when impaired resonance and harsh respiratory sounds were detected at the left base; notwithstanding this, the case was looked upon as one of typhoid fever. As the temperature remained above 104° F. it was decided to place the patient in a bath at about 90° F.; this quickly reduced the temperature, but had to be repeated in about two hours. On the sixth day of the disease, the patient had several baths. On the seventh day

the signs of pneumonia were well marked; poultices were applied over the entire left lung, the baths were discontinued, but the arms were packed in towels wrung out of cold water. On the eighth day the temperature rose to 104° F. in the evening, but fell in about an hour, when the arms were again packed. The cough was troublesome and dry. The next day the patient was much improved, the temperature having fallen to 99°. Improvement continued for a few days, but, on the fifteenth day of the illness, dulness was detected, followed by considerable cough, high evening temperature, restlessness at night, and sweating. These symptoms continued for about three weeks, when the lad began to improve, and after a month at the seaside regained his normal health.

1771. *Goodhart on Peritoneal Abscess in Children.* Dr. Goodhart, in the *Brit. Med. Jour.*, Oct. 1883, p. 775, publishes notes of three cases of peritoneal abscess in children. The question of treatment in such cases requires great consideration; on the one hand, there is risk of pus gravitating into the hypochondria if a free opening be not made; on the other hand, there is a difficulty of draining the cavity of the peritoneum if an opening be made. Many cases do best if left to nature in young children, as an early incision may only open one abscess and leave several others.

1772. *Barlow on Rheumatism and its Allies in Childhood.*—Dr. Thomas Barlow (*Brit. Med. Jour.*, Sept. 1883, p. 509) at the annual meeting of the British Medical Association, introduced a discussion on rheumatism in childhood. It is impossible to define systematically what is meant by rheumatism, and at present it is best to agree on what we consider to be a typical case of rheumatic fever, and to study the subsequent relapses, sequelae, and recurrences of that affection. Attention is drawn to an affection about which there is great difference of opinion—viz., scarlatinal rheumatism. Rheumatism is often spoken of as a sequela of scarlet fever, but it is more often a complication than a sequela. Often in scarlet fever swellings in the sheaths of the tendons are noticed, and joint-structures become implicated; these symptoms subside very rapidly under the influence of salicylate of soda. In rare cases, the effusion in one joint at least becomes purulent. There is also in scarlet fever sometimes an affection of serous membranes parallel to what is found in rheumatic fever, but in scarlet fever these effusions often become purulent. Speaking of skin-lesions in relation with rheumatism, the author does not consider that erythema nodosum is closely related to rheumatism, much less convertible into it; but with regard to erythema marginatum and erythema papulatum, there seems more satisfactory evidence to prove that they are related to rheumatism. Urticaria and purpura are in rare instances also related to rheumatism. Dr. Barlow thus sums up his remarks on the relation between chorea and rheumatism. 1. Choreia should be looked upon as a symptom rather than a disease. 2. We are no more justified in saying that choreia is always rheumatic, than in saying that delirium and hyperpyrexia are always rheumatic. 3. Choreia occurs so frequently in connection with rheumatic symptoms both in combination and in alternation, that we are justified in provisionally regarding it as itself often a rheumatic symptom. Salicin compounds are not often of much use in the rheumatism of infants, as these compounds are most useful in cases of joint-

effusions with pain and fever; whereas a great deal of the rheumatism met with in children is insidious, being attended with ill-defined joint-affection, slight pain, and fever.

1773. *Drewitt on Condensed Milk as Food for Infants.*—Dr. Drewitt, in the *Lancet*, June 1883, p. 1085, upholds the use of condensed milk as food, for infants amongst the poor of London. It is more easily digested than cow's milk, being less inclined to curdle and form hard clots in the infant's stomach. As to condensed milk causing rickets, the author says he has always found it very difficult to trace this disease to the use of condensed milk properly given. It ought to be diluted with ten or twelve times its bulk of water; and if there be any tendency to sickness, about one-sixth of the water ought to be lime-water, which still further delays the formation of the clot by neutralising the acid of the stomach. The water should be boiling when added to the milk, especially in summer. [That condensed milk, as ordinarily made, contains cane-sugar in far too great an excess to be compatible with health, is self-evident; and experience has found that the unsweetened condensed milk, now manufactured, bids fair to supply a great want.—*Rep.*]

RICHARD NEALE, M.D.

REVIEWS.

ARTICLE 1774.

Micro-Photography, including a Description of the Wet Collodion and Gelatino-Bromide Processes, &c. By A. COWLEY MALLEY, B.A.; M.B., &c. London: H. K. Lewis. 1883.

SINCE the year 1840, when Dr. Donné presented to the Academy of Sciences a series of reproductions of natural history microscopic objects, and later, in 1845, published, in conjunction with M. Foucault, his well-known Atlas, illustrated by figures, printed from chemically engraved daguerreotype plates, various books and memoirs with illustrations have from time to time appeared, utilising or advocating the application of photography for the delineation of microscopic objects. In 1866 Dr. Moitessier published an excellent, comprehensive, and well-illustrated book on the subject. Still we appear to have advanced very slowly towards its general and successful application. Have we been too conservative and hindered its advance from want of a due appreciation of its services? or may we suppose photographers as a rule are not microscopists, nor microscopists photographers, and that few have the time or the patience to be both?

The microscope now demands, even from the busy medical man, a certain amount of his time as an aid to his diagnosis, and with the visual results he is mostly satisfied; but in questions of deep original research, and especially in reference to those minute organisms which now claim the attention of the profession, whether as originators, or simply the companions of various zymotic and specific diseases, can photography render any permanent assistance? This question has already been largely answered in the affirmative by the use to which Dr. Koch and others have applied it in their special inquiries; and from the improvements that have of late been made in high power objectives of each class, a more extended application may be anticipated. The difficulty of distinguishing the minute differences,

measuring the diameters, and delineating minute organisms, without the admission of error, is exceedingly great. It is here especially that the services of photography may be applied, as has been done by the Count Castracane in his study of the diatomaceæ, his collection numbering over 3,000 negatives of these silicious cells. Again, Dr. Richard Norris has employed it for the illustrations to his work on the *Physiology and Pathology of the Blood*. He thus states his reason for adopting it, 'as it removes the doubt and distrust which are inseparable from hand drawing and engraving;' 'it allows of extensive comparison of specimens;' and its well-known power to make apparent minute differences of structure, and colour, which baffle the most trained eye, give it a claim to be regarded as a new and valuable method of research in histology and pathology.' Yet its application to the general rendering of either pathological or histological sections is somewhat limited, owing to the impossibility of photographing two planes at their best separate focus by one operation; though, when due care is taken in the selection of the object, the result can be made to compete with the skilled draughtsman, and often afford him considerable assistance.

By the almost simultaneous appearance this year of two books, the one in America, and the other in this country, upon the method of taking photographs of microscopic objects, photomicrography, it may be surmised that a want has been felt in both countries which the authors have severally endeavoured to meet. Comparing for a moment the two works, it is impossible not to speak in praise, though not under review, of the handsome 8vo. volume from the pen of Dr. G. M. Sternberg, well-known from his experimental researches upon the specificity of certain diseases, published by Osgood & Co., Boston, with heliotype prints by the Boston Heliotype Company, many of which are admirable illustrations of the adaptability of photography to microscopy; while for the work, especially under notice, by Dr. Malley, equal admiration cannot be offered, notably as coming from the pen of one, who for ten years has been perfecting the method advocated.

From a careful examination of the four photomicrographs forming the frontispiece, and a knowledge of the perfection to which photomicrographs have been brought in America, as in the series is used from the Army Medical Museum, Washington, and in the various illustrated works and pamphlets on the Continent, and in this country; it appears either that the author has not carried out his teaching, or that he has depreciated his work by imperfect focussing and illumination, as each of the prints are deficient in definition.

Dr. Malley is evidently well acquainted with the requirements which lead to perfection in this branch of photography, as many useful directions are to be found in his pages, some of which, however, seem to have been rather hastily written. The first two chapters, with diagrams, are devoted to the rudimentary principles of optics and the properties of microscope objectives. The next chapter particularises the kind of microscope used, to which is added a description of a special substage apparatus, fig. 16. The advantage to be derived when using high powers for preventing 'the passage of any rays, except those actually concerned in the direct illumination of the object, and the subsequent formation of the image on the focussing screen,' by the use of a pinhole cap

on the condenser, if not an immersion one, is pointed out. This cap is also used for obtaining coincidence in the optic axis, between the condenser and objective. Surplus illumination should be carefully avoided, even when using medium or low powers. A figure, with description of a cheap form of heliostat for use with sunlight, is given; and also a figure with particulars of a lamp for suitable artificial light, as a simple modification of the one recommended by the Rev. Mr. Dallinger in his laborious researches upon the life-history of some of the monads. Directions are stated for making a combination base board, which is of doubtful utility where great steadiness is absolutely required, and a plan is described for converting an ordinary room into one adapted to these photographic pursuits.

Twenty pages are devoted to the preparation and mounting of microscopic objects as usually given in works on microscopy, but, for the convenience of photographing such objects, it is recommended that the specimens should be mounted between two squares of thin cover-glass, using a boxwood or other slide to hold them. Occasionally there may be some advantage in this mode of mounting, as the object can be examined from either side, and the aberrations are less than when using the ordinary slip. Chapter V. is devoted to the manipulations of the wet and dry processes; such are to be found in the various manuals on photography. Then follow the arrangement and mode of employment of the apparatus which the author adopts, and alleges to have certain advantages over those commonly used, whether in employing sun-light, lamp-light, or the electric light. An ordinary paraffin lamp with a single large wick, is recommended as the best general source of illumination; and by it, it is stated, a negative can be taken 'in five minutes with the $\frac{3}{4}$ inch objective having a magnification of from 1,000 to 5,000 diameters, which will bear subsequent enlargement to 50,000 (!) before the finest details become visible to the naked eye.' Certainly this cannot apply to either of the illustrations in the frontispiece. Swan's incandescent lamp is strongly advocated, but the expense and trouble in procuring the necessary current prove a serious drawback to its use. The magnesium and lime lights are described, and their disadvantages named. Figures and explanations are given of the horizontal and vertical forms of apparatus; the method of testing the illumination is explained in detail, and it is remarked 'that the chemical focus is found when the object appears clearly defined, although its markings are surrounded by a red areola.' In high power objectives, not specially corrected for the violet ray, when the complementary tints of claret and light green, as the outstanding rays, form the image on the screen, the resulting negative, under careful arrangement, is ordinarily very sharply defined. The remainder of the work is devoted chiefly to photographic defects and their remedies, and to prints and pictures by camera and contact printing, as usually taught in the manuals.

Some of the figures are imperfectly lettered; fig. 3 should be transposed; fig. 26, p. 52, should be fig. 22. Typographical errors occur at p. 60—*faraminifera* for *foraminifera*; p. 89—*coscinodiscu* for *coscinodiscus*; benzole for bensol. In any future edition, it is to be hoped that a more perfect frontispiece may be substituted for the present one, that the name of the book be changed to *Photomicrography* in accordance with the nomenclature in current use, that further

instructions be given for taking stereo-pictures and the employment of polarised light indicated.

R. L. MADDOX, M.D.

ARTICLE 1775.

Farmacopea Nazionale e Generale di Materia Medica e Terapia. By Professor C. RUATA, Assistente di Materia Medica presso la R. Università di Padova.

UNITED Italy has as yet no official Pharmacopœia; to introduce order into the chaos which consequently prevails, Professor C. Ruata has compiled his *Farmacopea Nazionale e Generale*, his aim being to collect all the drugs, giving their preparation, action, and uses mentioned in the different Pharmacopœias of the more civilised nations, and thus to offer his compatriots an authoritative guide pending the appearance of an official Pharmacopœia. Professor Ruata is well-known in the field of original research, and as the able translator of the works of others. Ringer's *Therapeutics*, Roberts' *Medicine*, Hooper and Guy's *Vade Mecum*, may be mentioned as examples of his industry in this line. The *Farmacopea Nazionale* is well up to date, the most recent researches, facts, and theories being given. From English sources he quotes freely, and says that no one can blame him, who knows the wealth of English contemporary medical literature in conscientious and practical works. The Pharmacopœia is arranged alphabetically, the name of the drug being given in Latin, French, English, and German, with its chemical formula or botanical appellation, as the case may be. The characteristics, adulterations, tests, preparations in the various pharmacopœias, doses, incompatibilities, action and uses, and, where necessary, what to do in cases of poisoning, then follow. The physiological action of drugs, where this has been studied, is given at length; and the author attaches great importance to the teachings of physiology and practical pharmacology for this reason, that, if the action of a drug on the organism be known, its therapeutical indications become evident, and that by following this method only can our modern therapeutics escape from the empiricism of past times. The work closes with a chapter on the art of prescribing, tables of weights and measures (England unfortunately being alone in adhering to the archaic system of pounds, ounces, and grains). The valuable table of doses from the German Pharmacopœia is given, showing the maximum single and daily doses, with the regulation that any unusual dose should be signalled thus (!) There are a full alphabetical index of remedies, which appear under their Latin and also under vulgar names in the various languages mentioned, and an index of diseases, with the remedies used. This work is a most complete and trustworthy compilation, and will add to the author's well-earned reputation.

G. D'ARCY ADAMS, M.D.

ARTICLE 1776.

Surgical Applied Anatomy. By FREDERICK TREVES, F.R.C.S., Assistant Surgeon to and Senior Demonstrator of Anatomy at the London Hospital; Examiner in Anatomy at the University of Aberdeen; Wilson Professor of Pathology, Royal College of Surgeons of England, 1881. London: Cassell & Co. 1883.

THE medical public are already familiar with numerous works on surgical anatomy. These

treatises assume, more or less, one out of two distinct types. An extreme example of the first type is Richard Quain's standard work, which demonstrates the application of the anatomy of the arteries to pathology and operative surgery. The second type is seen to greatest advantage in Hilton's *Rest and Pain*. The former class, very useful in its way, includes manuals that, of necessity, are little more than descriptive catalogues of arteries or operations; the latter, to be of any value, must be readable literary compositions, prepared by writers who possess clinical and operative experience. The author of *Surgical Applied Anatomy* can claim such experience, is an able writer, and is also an authority on purely anatomical questions. His manual tends towards the second type, though the subjects are arranged in anatomical order. All those parts of the surgery of arteries that deal with ligature, collateral circulation and abnormalities are omitted, partly through want of space, partly because those subjects are fully treated in well-known text-books on surgery and anatomy. The passages on surface-anatomy and regional surgery are very good; they are made as readable as such subjects possibly can be, without any sacrifice of accuracy of detail. There are also some excellent paragraphs on the anatomy of certain well-known surgical affections, such as hip-joint disease, constituting a feature quite original in a work of this class, yet in no way beyond its proper scope. Mr. Berjeau's woodcuts are highly satisfactory, more especially some of the diagrams representing the relations of thoracic and abdominal viscera. Mr. Treves' work cannot fail to prove useful both to the student and to the operative surgeon.

ALBAN DORAN.

ARTICLE 1777.

Die Elektro-Technik in der Practischen Heilkunde. By Dr. LEWANDOWSKI. 1 vol., small 8vo., pp. 384, 95 Illustrations. Leipzig: Hartleben.

THE object of the author is to give a complete account of recent electrical apparatus for medical and surgical purposes. After a short chapter on the laws of the electrical currents and their physiological effects, he successively describes magnetic and static appliances which, as is well known, have been restored to the therapeutical armamentarium for the treatment of hystero-epilepsy, and other neuroses.

We next find a very full and complete review of all the chief galvanic elements, with their numerous modifications. The Leclanché cell, which in this country is now almost exclusively used, has not yet displaced in Germany the more cumbersome acid and sulphate of copper elements. Leiter, of Vienna, however, has made portable Leclanché's cells, of which the author speaks in terms of the highest praise. The Faure accumulators and thermopile are also noticed, though not well adapted for medical purposes. In the chapter on batteries and their accessories, we miss any mention of Bennett's ingenious handle-rheostat, and of the reviewer's apparatus for galvano-faradisation.

The author rightly condemns for any but the ordinary therapeutical applications the use of pocket faradic apparatus; but the chapter treating of the latter is singularly short and out of proportion with the preceding ones.

The most interesting part of the book is that which treats of galvano-caustics, and the recent

application of electricity to the production of light in the internal organs; as well as of the medical uses of the microphone, induction-balance, &c.

In his endeavour to be complete, the author has quoted names and statements which are certainly not worthy to figure in a scientific production; but the reader will readily separate the chaff from the wheat, and Dr. Lewandowski's work is to be recommended as well fulfilling the aims of its author.

A. DE WATTEVILLE, M.D.

NEW INVENTIONS.

ARTICLE 1778.

THE ELECTRO-GLACIAL APPLICATORS.

WE have deferred calling attention to this invention earlier, being aware that certain interested parties had commenced legal proceedings against the inventor and patentee, Miss McMullin, with a view to quash the patent and prevent the introduction of the brush. Through the determination of the inventor to protect her rights, she has succeeded in overcoming the opposition named, and the brushes (for they are made for several purposes) are now fairly before the public. Hair and flesh brushes were the first introduced, but there have recently been added others for horses and dogs. The brushes differ from the so-called electric or magnetic brushes that have hitherto appeared, in having a perfect electric battery concealed in the back, the current from which, kept in force by the aid of a few drops of acid inserted with a pointed glass tube through a small hole at the side, is communicated to a set of metallic flexible wires forming a portion of the brush itself.



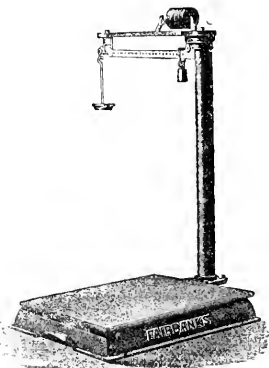
As a proof that an electric current is present, and of a certain quantity, it deflects the needle of a galvanometer, sets an electric bell in motion, and decomposes water; and the circuit is only completed when the brush is brought into contact with the hair or skin. Miss McMullin, who was a great sufferer from neuralgia and nervous symptoms, has experienced great benefit from her invention; and possesses numerous testimonials from persons who have used the brushes, of an equally satisfactory character. Applying electricity to the horse is novel, and probably many a jaded steed may derive benefit from a good rub down with the electric brush.

ARTICLE 1779.

FAIRBANKS'S PERSONAL WEIGHING MACHINE.

THE attention now being paid by the profession to watching the changes that from time to time occur in the weight of the body, has caused a demand for an inexpensive and convenient machine that may

be relied on for this purpose, in place of the old weighing-chairs, which are costly, cumbrous, often incorrect, and even in the house of a medical man sometimes used for purposes for which they are not intended, thus helping to put them out of order. The one illustrated answers all requirements. It is strong, neat in appearance, and occupies but comparatively little room, the platform being only 19 by 13 inches; its weighing capacity ranges from 2 ounces up to 24 stones, or 3 cwt., sufficiently



comprehensive for the purpose, while its price, 4*l.*, is a very moderate charge for such an article. The makers, Messrs. Fairbanks & Co., of New York, and Upper Thames Street, London, are the original inventors of the weigh-bridge or platform weighing-machine, which has completely revolutionised the process of weighing, and it is well known that quality has always been the guiding feature with them in everything they produce. The machine in question was suggested to them by some of the profession in the United States, where it has been extensively sold; and since its introduction here it has met with marked success, which, we understand, is constantly on the increase, and from our knowledge of it we can confidently recommend it to the notice of the profession.

ARTICLE 1780.

INSTRUMENT FOR OPENING PELVIC ABSCESES.

PROFESSOR CLINTON CUSHING, M.D. (*Pacific Med. and Surg. Jour.*, Sept.), has devised an instrument consisting of two blades, which when closed form a trocar, and when introduced into the abscess direct, or along the side of an aspirator needle, the handles can be closed and the extremities separated so as to act as a dilator, and thus tear the connecting tissue sufficiently to furnish the most ample room for the escape of pus and the introduction of a drainage-tube. The advantage of this instrument over a knife, he alleges, is that the danger of injuring the ureter or an artery is reduced to a minimum; and the advantage over a trocar is that of being able to make a large and free opening before withdrawing it, and with no additional risk.

MISCELLANY

CYCLONE SURGERY.—In the report of the Executive Committee of the Associate Society of the Red Cross, of Copiah county, Mississippi, lately issued at Jackson, we (the *New Orleans Medical and Surgical Journal*) find incorporated a valuable report on the 'Surgery of the Cyclone,' by Dr. Luther Sexton, formerly of our Charity Hospital, whose zealous and successful labours among the victims of the cyclone disasters at Wesson, have prominently identified him with the humanitarian and charitable work done at that place. Dr. Sexton summarises the number of cases treated at Beauregard, Wesson, and Georgetown, by himself and other physicians, as follows. Total number wounded, 266; killed outright and died subsequently from the effects of injuries, 75. Diagnoses: fractures, 50; dislocations, 10; erysipelas, 15; gangrene, 2; capital operations, 2. In submitting his report, Dr. Sexton concludes by saying: 'It is really miraculous that such a tornado could have swept across a country thirty miles in one direction by about one-fourth of a mile in another, embracing in its course two small towns, and causing such a small percentage of deaths. It is wonderful that even one should have been left to tell the tale at Beauregard on April 22, 1883. When we consider the myriads of missiles, viz., the bricks, mortar, furniture, planks, slates, shingles, and in fact everything that could be used in building or in a general supply store, went pell mell through the air on an almost inconceivable speed, then the large number that escaped with comparative little injury seems almost fabulous.'

THE ETHER HABIT.—Dr. Sedan (*Gaz. des Hôpitaux*, Sept. 15), reports the case of a young man, 19 years of age, who for nine years was in the habit of taking daily between 100 and 1,000 grammes of ether. When first seen by Dr. Sedan he was 10 years of age—anæmia with a souille accompanying the first sound of the heart, preserving nevertheless a very satisfactory general condition. He became one of the most promising students of the Lyceum, of a quick and brilliant intelligence, laborious, and working with success. He confided to Dr. Sedan that he drank ether, and that was the secret of his success; he reasoned like a man, and promised not to use the stimulant except to assist the efforts of his intelligence. From that time he commenced increasing amounts of ether, 20 to 30, 50, 80, 100 grammes a day, and as much at night in vapour. Still he was at the same time engaged in working out the most difficult questions in the higher mathematics. Neither parental authority or medical advice availed to break him of the habit. He finally consumed 900 to 1,000 grammes a day, mostly by the mouth. He was undersized and with a feeble constitution. No immediate disturbance showed itself at first, and he finally died of nitral insufficiency. During the last year of his life, he used both ether and morphia subcutaneously.

DRUGS IN JAPAN.—The British Consul in Yokohama, in his summary of trade for last year just published, gives as the total import value of drugs, medicines, and chemicals, the sum of (Mexican) 394,624 dols., to which amount quinine contributed 40,301 dols., and santaline nearly 25,000 dols., equal to 90,000 ounces. It is further stated that 34,000 pounds of bromide of potassium were imported. The importation of morphia amounted to about 6,000 ounces. The rapidly increasing employment of Western remedies, together with the increased popularity of our methods of treatment based upon really scientific investigation into the causes of disease, contrasts very favourably with the slow and painfully conservative action of the native physicians of China.

THE DISEASE OF THE MONEY-COUNTERS.—A Washington correspondent, visiting the Treasury Department, noticed that many of the women employed in counting bank-notes looked ill, and had sores upon their hands or heads. The superintendent gave the following account of the trouble. 'Very few,' he said, 'who spend

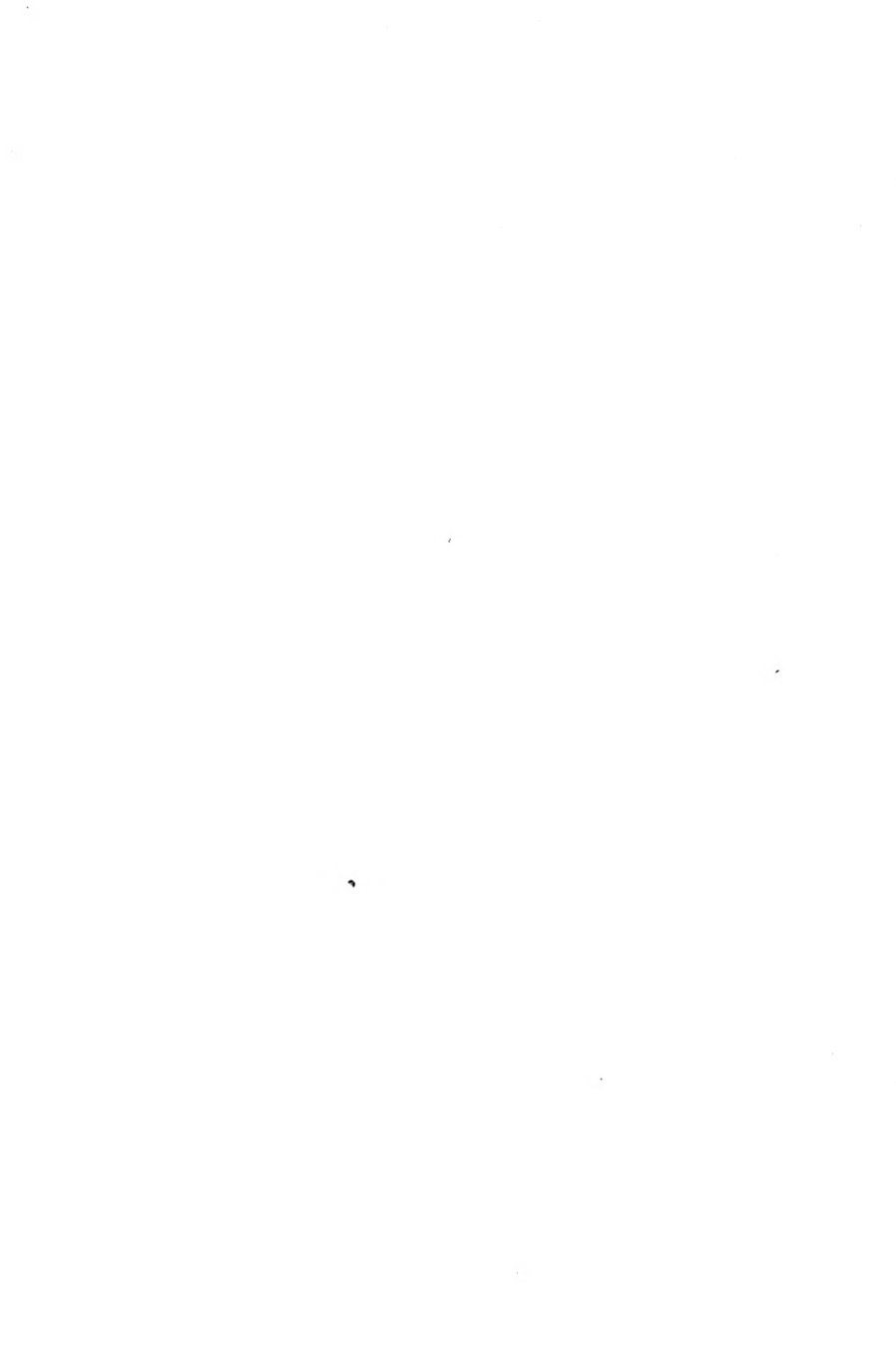
any considerable time in counting money escape the sores. They generally appear first on their hands, but frequently they break out on the head, and sometimes the eyes are affected. We can do nothing to prevent this. All of the ladies take the greatest care of themselves in their work, but sooner or later they are afflicted with sores. The direct cause of the sores is the arsenic employed in the manufacture of the money. If the skin is the least abraded, and the arsenic gets under the flesh, a sore will appear the next morning. The habit that every one has of putting the hand to the head and face is the way the arsenic-poisoning is carried to those portions of the body. See here,' said Mr. Rodgers, stopping by the side of a young lady, and picking up a glass vessel containing a sponge, 'this sponge is wet, and is used to moisten the fingers while counting the money. You see how black it is. That's arsenic. Every morning a new piece of sponge is placed on the desk of each employee, but before the day is over it is as black as this. I have known half a dozen cases where ladies have been compelled to resign their positions. There are three ladies who were here six years before they were afflicted with sores. About three months ago they were so visited by them that they had to quit work. They have been away ever since, and the physician's certificate in each case says that their blood is poisoned with arsenic.'

A SUIT TO OBTAIN A DIPLOMA.—The *Maryland Medical Journal* gives the outlines of the facts in a suit lately brought against the faculty of the College of Physicians and Surgeons, of Baltimore, by a gentleman who came up for the degree in the class of 1883, but was among the rejected. It seems that he petitioned a court to issue a *mandamus* ordering the faculty to give him a diploma—on what ground is not stated. The faculty filed a demurrer setting forth that it had the right to withhold its diploma on any ground it saw fit to take: that in such a matter its action was not subject to judicial revision. The demurrer having been sustained, the case had been taken to the Court of Appeals.

A BOGUS MEDICAL COLLEGE.—The *New York Medical* states that W. H. Coney, who for three years past has been running a bogus medical college in Milwaukee, Wisconsin, despite all efforts of the authorities to suppress the concern, has decamped, deserting his family. He was a hostler to a surgeon in the British Army, and gained some slight knowledge of medicine. He secured a bogus diploma, and soon after his arrival in Milwaukee began practising medicine. He opened a medical college, and turned out about sixty graduates, the most of whom are practising illegally in Wisconsin and Minnesota. Coney's bogus concern, through some hocus-pocus legislation, secured a charter from the Legislature, and all efforts to suppress it proved futile.

BLACK-MAILING A PHYSICIAN.—American papers relate a curious story regarding an attempt to rob Dr. George A. Gordon, a physician of Sandusky. He was one day summoned by telephone to call upon a sick person at a house in the suburbs. He drove at once to the house, and was politely ushered in by a man in his shirt-sleeves. The door was quickly closed, and the man instantly seized Dr. Gordon by the throat and held a 'billy' menacingly above his head and demanded his money. Dr. Gordon only had 10 dollars about him, and offered that to the man, but the latter refused it, and compelled the doctor to give him a cheque for 500 dollars and an order on Mrs. Gordon for a similar sum. The man then tied Dr. Gordon's hands, locked him in the house, took the horse and buggy, and drove away. Dr. Gordon managed to free his hands, leaped from the window, ran to a store near, and telephoned his wife not to pay the order, and to summon the police to arrest the man if he presented it. The fellow drove to the house, but seeing the police hurriedly approaching he turned and drove rapidly into the country. He was subsequently apprehended, and found to be a homœopathic physician who had graduated about five years ago.





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